

March 6, 2003

**Re: Covanta Indianapolis, Inc. 097-5985-00123**

TO: Interested Parties / Applicant

FROM: Paul Dubenetzky  
Chief, Permits Branch  
Office of Air Quality

### **Notice of Decision - Approval - Effective Immediately**

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-15-5-3, this permit is effective immediately, unless a petition for stay of effectiveness is filed and granted, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3-7 and IC 13-15-6-1(b) require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, ISTA Building, 150 W. Market Street, Suite 618, Indianapolis, Indiana 46204, **within thirty (30) days from the date of this notice**. The filing for administrative review is complete on the earliest of the following dates that apply to the filing:

- (1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
- (2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
- (3) the date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision or other order for which you seek review by permit number, the name of the applicant, location, the date of this notice, and all of the following:

- (1) the name and address of the person making the request;
- (2) the interest of the person making the request;
- (3) identification of any persons represented by the person making the request;
- (4) the reasons, with particularity, for the request;
- (5) the issues, with particularity, proposed for consideration at any hearing; and
- (6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

*(over)*

Pursuant to 326 IAC 2-7-18(d), any person may petition the U.S. EPA to object to the issuance of a Title V operating permit or modification within sixty (60) days of the end of the forty-five (45) day EPA review period. Such an objection must be based only on issues that were raised with reasonable specificity during the public comment period, unless the petitioner demonstrates that it was impracticable to raise such issues, or if the grounds for such objection arose after the comment period.

To petition the U.S. EPA to object to the issuance of a Title V operating permit, contact:

U.S. Environmental Protection Agency  
Administrator, Christine Todd Whitman  
401 M Street  
Washington, D.C. 20406

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.

Enclosures

FNTVOP.WPD

8-21-02



*Frank O'Bannon*  
Governor

*Lori F. Kaplan*  
Commissioner

100 North Senate Avenue  
P. O. Box 6015  
Indianapolis, Indiana 46206-6015  
(317) 232-8603  
(800) 451-6027  
[www.state.in.us/idem](http://www.state.in.us/idem)

## **PART 70 OPERATING PERMIT OFFICE OF AIR QUALITY**

**Covanta Indianapolis, Inc.  
2320 South Harding Street  
Indianapolis, Indiana 46221**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: T097-5985-00123	
Issued by: Original Signed by Janet McCabe Janet G. McCabe, Assistant Commissioner Office of Air Quality	Issuance Date: January 27, 2003  Expiration Date: January 27, 2008

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D.3.3 Particulate Matter (PM) Emissions

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## SECTION A

## SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

### A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)] [326 IAC 2-7-(22)]

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The Permittee owns and operates a stationary municipal solid waste combustion facility.

Responsible Official:	Steve Diliberto
Source Address:	2320 South Harding Street, Indianapolis, Indiana 46221
Mailing Address:	40 Lane Road, Fairfield, New Jersey 07007
General Source Phone Number:	(317) 634-7367
SIC Code:	4953
County Location:	Marion County
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Permit Program Major under PSD; Major Source, Section 112 of the Clean Air Act 1 of 28 Source Categories

### A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

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This stationary source consists of the following emission units and pollution control devices:

- (a) Three (3) mass burn waterwall municipal solid waste combustion units, identified as EU#1, EU#2, and EU#3, capable of burning solid waste 726 tons per day at 5200 Btu/lb, municipal solid waste only, which is equivalent to 192,440 pounds per hour of steam. Each combustor unit is equipped with two (2) 140 mmBtu per hour natural gas fired burners used for start up, shutdown, and flame stabilization.
  - (1) The flue gas from each combustion unit is controlled by :
    - (A) a spray dryer absorber with hydrated lime slurry controlling acid gas, identified as CE1A, CE2A, and CE3A;
    - (B) fabric filter bags controlling particulates, identified as CE1B, CE2B, and CE3B in parallel; exhausting to stack vents 1, 2, and 3, with CEMS for NO<sub>x</sub>, CO, SO<sub>2</sub>, O<sub>2</sub>, and a COM for opacity.
    - (C) a Mercury Emissions Control System - comprised of one (1) dry activated carbon storage silo equipped with an integrated baghouse system with a maximum storage capacity of 3,000 cubic feet; three (3) outlet hoppers one for each combustion unit; three (3) surge bins, one for each combustion unit, each equipped with gravimetric feeders for controlling the carbon feed rate to each combustion unit; and three(3) injection trains equipped with pneumatic conveying equipment to transport (blow) the carbon from the feeder to the flue gas duct of each combustion unit.
    - (D) a Nitrogen Oxide Emission Control System - one (1) selective noncatalytic reduction (SNCR) system comprised of one (1) 20,000 gallon, aqueous ammonia storage tank; two (2) ammonia feed pumps to supply ammonia from the storage tank to the injection nozzle

system; and three (3) injection nozzle systems equipped with carrier air blowers.

- (2) A Fugitive Ash Emission Control System - one (1) dustmaster fly ash conditioning system comprised of five (5) screw conveyors that convey fly ash from the three (3) scrubber-baghouse units to the ash storage silo; one (1) ash storage silo that batch feeds the fly ash into the dustmaster conditioning system; and one (1) dustmaster fly ash conditioning system that mixes water and fly ash to produce a consistent moisture content that reduces fugitive dust.
- (b) Lime Silo equipped with a vent fabric filter for particulate control.
- (c) One (1) dry activated carbon storage silo equipped with an integrated baghouse system with a maximum storage capacity of 3,000 cubic feet.

A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)]  
[326 IAC 2-7-5(15)]

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This stationary source also includes the following insignificant activities which are specifically regulated, as defined in 326 IAC 2-7-1(21):

- (a) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment.  
[326 IAC 6-1-2]

A.4 Part 70 Permit Applicability [326 IAC 2-7-2]

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This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

- (a) It is a major source, as defined in 326 IAC 2-7-1(22).
- (b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).



## SECTION B

## GENERAL CONDITIONS

### B.1 Definitions [326 IAC 2-7-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2 and 326 IAC 2-7) shall prevail.

### B.2 Permit Term [326 IAC 2-7-5(2)] [326 IAC 2-1.1-9.5]

This permit is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modification or amendments of this permit do not affect the expiration date.

### B.3 Enforceability [326 IAC 2-7-7]

Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

### B.4 Termination of Right to Operate [326 IAC 2-7-10] [326 IAC 2-7-4(a)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-7-3 and 326 IAC 2-7-4(a).

### B.5 Severability [326 IAC 2-7-5(5)]

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

### B.6 Property Rights or Exclusive Privilege [326 IAC 2-7-5(6)(D)]

This permit does not convey any property rights of any sort, or any exclusive privilege.

### B.7 Duty to Supplement and Provide Information [326 IAC 2-7-4(b)] [326 IAC 2-7-5(6)(E)] [326 IAC 2-7-6(6)]

(a) The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

and

Indianapolis Office of Environmental Services  
Administrative Building  
2700 South Belmont Avenue  
Indianapolis, Indiana 46221

The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) The Permittee shall furnish to IDEM, OAQ and Indianapolis Office of Environmental Services (OES) within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34). Upon request, the Permittee shall also furnish to IDEM, OAQ and Indianapolis OES, copies of records required to be kept by this permit.

- (c) For information furnished by the Permittee to IDEM, OAQ and Indianapolis OES, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1 When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

**B.8 Compliance with Permit Conditions [326 IAC 2-7-5(6)(A)] [326 IAC 2-7-5(6)(B)]**

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- (a) The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit, is grounds for:
  - (1) Enforcement action;
  - (2) Permit termination, revocation and reissuance, or modification; or
  - (3) Denial of a permit renewal application.
- (b) Noncompliance with any provisions of this permit, except any provision specifically designated as not federally enforceable, constitute a violation of the Clean Air Act.
- (c) It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
- (d) An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.

**B.9 Certification [326 IAC 2-7-4(f)] [326 IAC 2-7-6(1)][326 IAC 2-7-5(3)(C)]**

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- (a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by a responsible official of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification.
- (c) A responsible official is defined at 326 IAC 2-7-1(34).

**B.10 Annual Compliance Certification [326 IAC 2-7-6(5)]**

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- (a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. The initial certification shall cover the time period from the date of final permit issuance through December 31 of the same year. All subsequent certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in letter form no later than April 15 of each year to:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

and

United States Environmental Protection Agency, Region V  
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)

77 West Jackson Boulevard  
Chicago, Illinois 60604-3590

- (b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (c) The annual compliance certification report shall include the following:
  - (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
  - (2) The compliance status;
  - (3) Whether compliance was continuous or intermittent;
  - (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-7-5(3); and
  - (5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ, may require to determine the compliance status of the source.

The submittal by the Permittee does require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

B.11 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)] [326 IAC 2-7-6(1) and (6)]  
[326 IAC 1-6-3]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit, including the following information on each facility:
  - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
  - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
  - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If due to circumstances beyond the Permittee's control, the PMP cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

The PMP extension notification does not require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

- (b) The Permittee shall implement the PMPs as necessary to ensure that failure to implement the PMP does not cause or contribute to a violation of any limitation on emissions or potential to emit.

- (c) A copy of the PMP's shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or contributes to any violation. The PMP does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (d) Records of preventive maintenance shall be retained for a period of at least five (5) years. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

**B.12 Emergency Provisions [326 IAC 2-7-16]**

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- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:

- (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
- (2) The permitted facility was at the time being properly operated;
- (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
- (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality,  
Compliance Section), or  
Telephone Number: 317-233-5674 (ask for Compliance Section)  
Facsimile Number: 317-233-5967

- (5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent either by mail or facsimile:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-7-5(3)(C)(ii) and must contain the following:

- (A) A description of the emergency;

- (B) Any steps taken to mitigate the emissions; and
- (C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (e) IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4-(c)(9) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAQ by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.
- (g) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
- (h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.

**B.13 Permit Shield [326 IAC 2-7-15] [326 IAC 2-7-20] [326 IAC 2-7-12]**

- (a) Pursuant to 326 IAC 2-7-15, the Permittee has been granted a permit shield. The permit shield provides that compliance with the conditions of this permit shall be deemed in compliance with any applicable requirements as of the date of permit issuance, provided that either the applicable requirements are included and specifically identified in this permit or the permit contains an explicit determination or concise summary of a determination that other specifically identified requirements are not applicable. The Indiana statutes from IC 13 and rules from 326 IAC, referenced in conditions in this permit, are those applicable at the time the permit has issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a Part 70 permit under 326 IAC 2-7 or for applicable requirements for which a permit shield has been granted.

This permit shield does not extend to applicable requirements which are promulgated after the date of issuance of this permit unless this permit has been modified to reflect such new requirements.

- (b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, IDEM, OAQ shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued. The permit shield shall continue in effect so long as the Permittee is in compliance with the compliance order.

- (c) No permit shield shall apply to any permit term or condition that is determined after issuance of this permit to have been based on erroneous information supplied in the permit application. Erroneous information means information that the Permittee knew to be false, or in the exercise of reasonable care should have been known to be false, at the time the information was submitted.
- (d) Nothing in 326 IAC 2-7-15 or in this permit shall alter or affect the following:
  - (1) The provisions of Section 303 of the Clean Air Act (emergency orders), including the authority of the U.S. EPA under Section 303 of the Clean Air Act;
  - (2) The liability of the Permittee for any violation of applicable requirements prior to or at the time of this permit's issuance;
  - (3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Clean Air Act; and
  - (4) The ability of U.S. EPA to obtain information from the Permittee under Section 114 of the Clean Air Act.
- (e) This permit shield is not applicable to any change made under 326 IAC 2-7-20(b)(2) (Sections 502(b)(10) of the Clean Air Act changes) and 326 IAC 2-7-20(c)(2) (trading based on State Implementation Plan (SIP) provisions).
- (f) This permit shield is not applicable to modifications eligible for group processing until after IDEM, OAQ has issued the modifications. [326 IAC 2-7-12(c)(7)]
- (g) This permit shield is not applicable to minor Part 70 permit modifications until after IDEM, OAQ has issued the modification. [326 IAC 2-7-12(b)(8)]

**B.14 Prior Permits Superseded [326 IAC 2-1.1-9.5]**

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- (a) All terms and conditions of previous permits issued pursuant to permitting programs approved into the state implementation plan have been either
  - (1) incorporated as originally stated,
  - (2) revised, or
  - (3) deletedby this permit.
- (b) All previous registrations and permits are superseded by this permit.

**B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]**

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- (a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provisions), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

and

Indianapolis Office of Environmental Services  
Administrative Building  
2700 South Belmont Avenue  
Indianapolis, Indiana 46221

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. A deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report.

The Quarterly Deviation and Compliance Monitoring Report does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

**B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination**  
**[326 IAC 2-7-5(6)(C)] [326 IAC 2-7-8(a)] [326 IAC 2-7-9]**

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- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-7-5(6)(C)] The notification by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ determines any of the following:
  - (1) That this permit contains a material mistake.
  - (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
  - (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-7-9(a)(3)]
- (c) Proceedings by IDEM, OAQ to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-7-9(b)]
- (d) The reopening and revision of this permit, under 326 IAC 2-7-9(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ may provide a shorter time period in the case of an emergency. [326 IAC 2-7-9(c)]. The notification by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

**B.17 Permit Renewal [326 IAC 2-7-4]**

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- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-7-4. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

- (b) Timely Submittal of Permit Renewal [326 IAC 2-7-4(a)(1)(D)]
  - (1) A timely renewal application is one that is:
    - (A) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
    - (B) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
  - (2) If IDEM, OAQ upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.
- (c) Right to Operate After Application for Renewal [326 IAC 2-7-3]

If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-7 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ any additional information identified as being needed to process the application.
- (d) United States Environmental Protection Agency Authority [326 IAC 2-7-8(e)]

If IDEM, OAQ fails to act in a timely way on a Part 70 permit renewal, the U.S. EPA may invoke its authority under Section 505(e) of the Clean Air Act to terminate or revoke and reissue a Part 70 permit.

B.18 Permit Amendment or Modification [326 IAC 2-7-11] [326 IAC 2-7-12]

- (a) Permit amendments and modifications are governed by the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this permit.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

Any such application shall be certified by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]



B.19 Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-7-5(8)]  
[326 IAC 2-7-12 (b)(2)]

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- (a) No Part 70 permit revision shall be required under any approved economic incentives, marketable Part 70 permits, emissions trading, and other similar programs or processes for changes that are provided for in a Part 70 permit.
- (b) Notwithstanding 326 IAC 2-7-12(b)(1) and 326 IAC 2-7-12(c)(1), minor Part 70 permit modification procedures may be used for Part 70 modifications involving the use of economic incentives, marketable Part 70 permits, emissions trading, and other similar approaches to the extent that such minor Part 70 permit modification procedures are explicitly provided for in the applicable State Implementation Plan (SIP) or in applicable requirements promulgated or approved by the U.S. EPA.

B.20 Operational Flexibility [326 IAC 2-7-20] [326 IAC 2-7-10.5]

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- (a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-7-20(b), (c), or (e), without a prior permit revision, if each of the following conditions is met:

- (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
- (2) Any preconstruction approval required by 326 IAC 2-7-10.5 has been obtained;
- (3) The changes do not result in emissions which exceed the emissions allowable under this permit (whether expressed herein as a rate of emissions or in terms of total emissions);
- (4) The Permittee notifies the:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

and

United States Environmental Protection Agency, Region V  
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)  
77 West Jackson Boulevard  
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

- (5) The Permittee maintains records on-site which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-7-20(b), (c), or (e) and makes such records available, upon reasonable request, for public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ, and Indianapolis OES, in the notices specified in 326 IAC 2-7-20(b)(1), (c)(1), and (e)(2).

- (b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-7-20(a):

For each such Section 502(b)(10) of the Clean Air Act change, the required written notification shall include the following:

- (1) A brief description of the change within the source;
- (2) The date on which the change will occur;
- (3) Any change in emissions; and
- (4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted compliance is not considered an application form, report or certification. Therefore, the notification by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (c) Emission Trades [326 IAC 2-7-20(c)]  
The Permittee may trade increases and decreases in emissions in the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-7-20(c).
- (d) Alternative Operating Scenarios [326 IAC 2-7-20(d)]  
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-7-5(9). No prior notification of IDEM, OAQ, and Indianapolis OES, or U.S. EPA is required.

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**B.21 Source Modification Requirement [326 IAC 2-7-10.5]**

A modification, construction, or reconstruction is governed by 326 IAC 2 and 326 IAC 2-7-10.5.

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**B.22 Inspection and Entry [326 IAC 2-7-6] [IA 13-14-2-2]**

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, and U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a Part 70 source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) Have access to and copy, any records that must be kept under the conditions of this permit;
- (c) Inspect, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) Sample or monitor, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

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**B.23 Transfer of Ownership or Operational Control [326 IAC 2-7-11]**

- (a) The Permittee must comply with the requirements of 326 IAC 2-7-11 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.

- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

The application which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

**B.24 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)]**

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- (a) The Permittee shall pay annual fees to IDEM, OAQ within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.
- (b) Except as provided in 326 IAC 2-7-19(e), failure to pay may result in administrative enforcement action, or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, I/M & Billing Section), to determine the appropriate permit fee.

## SECTION C

## SOURCE OPERATION CONDITIONS

Entire Source
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### Emission Limitations and Standards [326 IAC 2-7-5(1)]

#### C.1 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of thirty percent (30%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

#### C.2 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1. 326 IAC 4-1-3 (a)(2)(A) and (B) are not federally enforceable.

#### C.3 Incineration [326 IAC 4-2][326 IAC 9-1-2]

The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and 326 IAC 9-1-2. 326 IAC 9-1-2 is not federally enforceable.

#### C.4 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

#### C.5 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted. The provisions of 326 IAC 1-7-2, 326 IAC 1-7-3(c) and (d), 326 IAC 1-7-4(d), (e), and (f), and 326 IAC 1-7-5(d) are not federally enforceable.

#### C.6 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.
- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
  - (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or

- (2) If there is a change in the following:
  - (A) Asbestos removal or demolition start date;
  - (B) Removal or demolition contractor; or
  - (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management  
Asbestos Section, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (e) Procedures for Asbestos Emission Control  
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
- (f) Indiana Accredited Asbestos Inspector  
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement that the inspector be accredited, pursuant to the provision of 40 CFR 61, Subpart M, is federally enforceable.

### **Testing Requirements [326 IAC 2-7-6(1)]**

#### **C.7 Performance Testing [326 IAC 3-6]**

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- (a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) The Permittee shall notify the IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by the IDEM, OAQ if the source submits to IDEM, OAQ a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

#### **Compliance Requirements [326 IAC 2-1.1-11]**

##### **C.8 Compliance Requirements [326 IAC 2-1.1-11]**

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements by issuing an order under 326 IAC 2-1.1-11. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U.S. EPA.

#### **Compliance Monitoring Requirements [326 IAC 2-7-5(1)] [326 IAC 2-7-6(1)]**

##### **C.9 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]**

Unless otherwise specified in this permit all monitoring and record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. If due to circumstances beyond its control, that equipment cannot be installed and operated within ninety (90) days, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

in writing, prior to the end of the initial ninety (90) day compliance schedule, with full justification of the reasons for the inability to meet this date.

The notification which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Unless otherwise specified in the approval for the new emission units, compliance monitoring for new emission units added through a source modification shall be implemented when operation begins.

##### **C.10 Maintenance of Continuous Emission Monitoring Equipment [326 IAC 2-7-5(3)(A)(iii)]**

- (a) The Permittee shall install, calibrate, maintain, and operate all necessary continuous emission monitoring systems (CEMS) and related equipment. In addition, prompt corrective action shall be initiated whenever indicated. In the event that a breakdown of a continuous emission monitoring system occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem. Whenever a continuous emission monitor other than an opacity monitor is malfunctioning or will be down for calibration, maintenance, or repairs for a period of four (4) hours or more, supplemental or intermittent monitoring of the parameter shall be implemented as specified below until such time as the emission monitor system is back in operation.

- (1) In the event of a sulfur dioxide outlet monitor failure at the stack, the Permittee shall maintain slurry feed at the rate at which it was being fed prior to the monitor malfunction and will record the slurry feed rate four (4) times an hour.
  - (2) In the event of nitrogen oxide monitor failure, the Permittee shall maintain ammonia feed at the rate at which it was being fed prior to the monitor malfunction and will record the ammonia feed rate four (4) times an hour.
  - (3) In the event of carbon monoxide monitor failure, the Permittee shall monitor the oxygen percent four (4) times an hour and maintain the oxygen percent range from 5 to 11 percent. In addition, the four (4) hour average of the municipal waste combustor rooftop thermocouple temperatures must remain greater than or equal to 1155°F, except during combustor startup, shutdown or malfunction.
  - (4) In the event of an oxygen monitor failure, the second oxygen monitor located at the stack outlet will be used as the backup analyzer immediately.
- (b) Nothing in this condition, or in Section D of this permit, shall excuse the Permittee from complying with the requirements to operate a continuous emission monitoring system pursuant to 326 IAC 3-5, and 40 CFR 60 Subpart A, Cb, and Eb.

C.11 Maintenance of Continuous Opacity Monitoring Equipment [326 IAC 2-7-5(3)(A)(iii)]

- (a) The Permittee shall install, calibrate, maintain, and operate all necessary continuous opacity monitoring systems (COMS) and related equipment. In addition, prompt corrective action shall be initiated whenever indicated.
- (b) In the event that a breakdown of a continuous opacity monitoring system occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem.
- (c) Whenever a continuous opacity monitor (COM) is malfunctioning or will be down for calibration, maintenance, or repairs for a period of four (4) hours or more, a calibrated backup COM shall be brought online within four (4) hours of shutdown of the primary COM, if possible. If this is not possible, visible emission readings shall be performed in accordance with 40 CFR 60, Appendix A, Method 9, for a minimum of one (1) hour beginning four (4) hours after the start of the malfunction or down time.
  - (1) If the reading period begins less than one hour before sunset, readings shall be performed until sunset. If the first required reading period would occur between sunset and sunrise, the first reading shall be performed as soon as there is sufficient daylight.
  - (2) Method 9 opacity readings shall be repeated for a minimum of one (1) hour at least once every four (4) hours during daylight operations, until such time that the continuous opacity monitor is back in operation.
  - (3) All of the opacity readings during this period shall be reported in the Quarterly Deviation and Compliance Monitoring Reports.
- (d) Nothing in this condition, or in Section D of this permit, shall excuse the Permittee from complying with the requirements to operate a continuous opacity monitoring system pursuant to 326 IAC 3-5, and 40 CFR 60 Subpart A, Cb, and Eb.

C.12 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

Any monitoring or testing required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60 Appendix B, 40 CFR 63, or other approved methods as specified in this permit.

### **Corrective Actions and Response Steps [326 IAC 2-7-5] [326 IAC 2-7-6]**

#### **C.13 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]**

Pursuant to 326 IAC 1-5-2 (Emergency Reduction Plans; Submission):

- (a) The Permittee prepared and submitted written emergency reduction plans (ERPs) consistent with safe operating procedures March 15, 2000.
- (b) If the ERP is disapproved by IDEM, OAQ, the Permittee shall have an additional thirty (30) days to resolve the differences and submit an approvable ERP.
- (c) Upon direct notification by IDEM, OAQ that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]

#### **C.14 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68.215]**

If a regulated substance, subject to 40 CFR 68, is present at a source in more than a threshold quantity, 40 CFR 68 is an applicable requirement and the Permittee shall submit:

- (a) A compliance schedule for meeting the requirements of 40 CFR 68; or
- (b) As a part of the annual compliance certification submitted under 326 IAC 2-7-6(5), a certification statement that the source is in compliance with all the requirements of 40 CFR 68, including the registration and submission of a Risk Management Plan (RMP); and

All documents submitted pursuant to this condition shall include the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

#### **C.15 Compliance Response Plan - Preparation, Implementation, Records, and Reports [326 IAC 2-7-5] [326 IAC 2-7-6]**

- (a) The Permittee is required to prepare a Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. A CRP shall be submitted to IDEM, OAQ upon request. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee, supplemented from time to time by the Permittee, maintained on site, and comprised of:
  - (1) Reasonable response steps that may be implemented in the event that a response step is needed pursuant to the requirements of Section D of this permit; and an expected timeframe for taking reasonable response steps.
  - (2) If, at any time, the Permittee takes reasonable response steps that are not set forth in the Permittee's current Compliance Response Plan and the Permittee documents such response in accordance with subsection (e) below, the Permittee shall amend its Compliance Response Plan to include such response steps taken.
- (b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition as follows:
  - (1) Reasonable response steps shall be taken as set forth in the Permittee's current Compliance Response Plan; or
  - (2) If none of the reasonable response steps listed in the Compliance Response Plan is applicable or responsive to the excursion, the Permittee shall devise and implement additional response steps as expeditiously as practical. Taking such



additional response steps shall not be considered a deviation from this permit so long as the Permittee documents such response steps in accordance with this condition.

- (3) If the Permittee determines that additional response steps would necessitate that the emissions unit or control device be shut down, the IDEM, OAQ shall be promptly notified of the expected date of the shut down, the status of the applicable compliance monitoring parameter with respect to normal, and the results of the actions taken up to the time of notification.
  - (4) Failure to take reasonable response steps shall constitute a violation of the permit.
- (c) The Permittee is not required to take any further response steps for any of the following reasons:
- (1) A false reading occurs due to the malfunction of the monitoring equipment and prompt action was taken to correct the monitoring equipment.
  - (2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for a minor permit modification to the permit, and such request has not been denied.
  - (3) An automatic measurement was taken when the process was not operating.
  - (4) The process has already returned or is returning to operating within "normal" parameters and no response steps are required.
- (d) When implementing reasonable steps in response to a compliance monitoring condition, if the Permittee determines that an exceedance of an emission limitation has occurred, the Permittee shall report such deviations pursuant to Section B-Deviations from Permit Requirements and Conditions.
- (e) The Permittee shall record all instances when response steps are taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.
- (f) Except as otherwise provided by a rule or provided specifically in Section D, all monitoring as required in Section D shall be performed when the emission unit is operating, except for time necessary to perform quality assurance and maintenance activities.

C.16 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5][326 IAC 2-7-6]

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- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.
  - (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ, may extend the retesting deadline.

- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The documents submitted pursuant to this condition do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

**Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

**C.17 Emission Statement [326 IAC 2-7-5(3)(C)(iii)][326 IAC 2-7-5(7)][326 IAC 2-7-19(c)][326 IAC 2-6]**

- (a) The Permittee shall submit an annual emission statement certified pursuant to the requirements of 326 IAC 2-6, that must be received by April 15 of each year and must comply with the minimum requirements specified in 326 IAC 2-6-4. The annual emission statement shall meet the following requirements:

- (1) Indicate estimated actual emissions of criteria pollutants from the source, in compliance with 326 IAC 2-6 (Emission Reporting);
- (2) Indicate estimated actual emissions of other regulated pollutants (as defined by 326 IAC 2-7-1) from the source, for purposes of Part 70 fee assessment.

- (b) The annual emission statement covers the twelve (12) consecutive month time period starting December 1 and ending November 30. The annual emission statement must be submitted to:

Indiana Department of Environmental Management  
Technical Support and Modeling Section, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

The emission statement does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (c) The annual emission statement required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

**C.18 General Record Keeping Requirements [326 IAC 2-7-5(3)][326 IAC 2-7-6]**

- (a) Records of all required data reports and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Unless otherwise specified in this permit all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

**C.19 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11]**

- (a) The source shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation the cause of the deviation, and the response steps taken must be reported. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

and

Indianapolis Environmental Resources Management Division  
Administrative Building  
2700 South Belmont Avenue  
Indianapolis, Indiana 46221

- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (e) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the calendar quarter. Reporting periods are based on calendar years.

### **Stratospheric Ozone Protection**

#### **C.20 Compliance with 40 CFR 82 and 326 IAC 22-1**

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Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with the standards for recycling and emissions reduction:

- (a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.
- (b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
- (c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

## SECTION D.1

## FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]

- (a) Three (3) mass burn waterwall municipal solid waste combustion units, identified as EU#1, EU#2, and EU#3, capable of burning solid waste 726 tons per day at 5200 Btu/lb, municipal solid waste only, which is equivalent to 192,440 pounds per hour of steam. Each combustor unit is equipped with two (2) 140 mmBtu per hour natural gas fired burners used for start up, shutdown, and flame stabilization.
- (1) The flue gas from each combustion unit is controlled by :
- (A) a spray dryer absorber with hydrated lime slurry controlling acid gas, identified as CE1A, CE2A, and CE3A;
  - (B) fabric filter bags controlling particulates, identified as CE1B, CE2B, and CE3B in parallel; exhausting to stack vents 1, 2, and 3, with CEMS for NO<sub>x</sub>, CO, SO<sub>2</sub>, O<sub>2</sub>, and a COM for opacity.
  - (C) a Mercury Emissions Control System - comprised of one (1) dry activated carbon storage silo equipped with an integrated baghouse system with a maximum storage capacity of 3,000 cubic feet; three (3) outlet hoppers one for each combustion unit; three (3) surge bins, one for each combustion unit, each equipped with gravimetric feeders for controlling the carbon feed rate to each combustion unit; and three(3) injection trains equipped with pneumatic conveying equipment to transport (blow) the carbon from the feeder to the flue gas duct of each combustion unit.
  - (D) a Nitrogen Oxide Emission Control System - one (1) selective noncatalytic reduction (SNCR) system comprised of one (1) 20,000 gallon, aqueous ammonia storage tank; two (2) ammonia feed pumps to supply ammonia from the storage tank to the injection nozzle system; and three (3) injection nozzle systems equipped with carrier air blowers.
- (2) A Fugitive Ash Emission Control System - one (1) dustmaster fly ash conditioning system comprised of five (5) screw conveyors that convey fly ash from the scrubber baghouse to the ash storage silo; one (1) ash storage silo that batch feeds the fly ash into the dustmaster conditioning system; and one (1) dustmaster fly ash conditioning system that mixes water and fly ash to produce a consistent moisture content that reduces fugitive dust.

The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.

### Emission Limitations and Standards [326 IAC 2-7-5(1)]

#### D.1.1 Effective Date of NSPS 40 CFR Part 60, Subpart Cb

All conditions related to 40 CFR 60, Subpart Cb are now effective.

#### D.1.2 General Provisions Relating to NSPS [326 IAC 12-1][40 CFR Part 60, Subpart A]

The provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 12-1, apply to the facility described in this section except when otherwise specified in 40 CFR Part 60, Subpart Cb and (as referenced within Subpart Cb) specific provisions of Subpart Eb.

#### D.1.3 Emission Limits [326 IAC 11-7-3][40 CFR 60, Subpart Cb]

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Pursuant to 326 IAC 11-7-3; 40 CFR 60.33b, Subpart Cb; and 40 CFR 60.34b, the concentration of pollutants contained in the gases discharged to the atmosphere from the municipal solid waste combustor facility shall not exceed the following limits:

- (a) Particulate Matter - 23 milligrams per dry standard cubic meter (mg/dscm), corrected to twelve percent (12%) carbon dioxide.
- (b) Opacity - 10% based on a 6-minute average.
- (c) Cadmium - 0.040 milligrams per dry standard cubic meter (mg/dscm) corrected to seven percent (7%) oxygen.
- (d) Lead - 0.44 milligrams per dry standard cubic meter (mg/dscm) corrected to seven percent (7%) oxygen.
- (e) Mercury - 0.080 milligrams per dry standard cubic meter (mg/dscm); or 15% of the potential mercury emissions concentration corrected to seven percent (7%) oxygen whichever is less stringent.
- (f) Sulfur dioxide - 29 parts per million by volume (ppmv); or 20% of the potential sulfur dioxide emission concentration corrected to seven percent (7%) oxygen, dry basis, calculated as a 24-hour daily geometric mean whichever is less stringent.
- (g) Hydrogen chloride - 29 parts per million by volume (ppmv); or 5% of the potential hydrogen chloride emissions concentration corrected to seven percent (7%) oxygen, dry basis, whichever is less stringent.
- (h) Organic emissions (expressed as total mass dioxins/furans) - 30 nanograms per dry standard cubic meter (ng/dscm) (total mass) corrected to seven percent (7%) oxygen. Total mass dioxin/furan emissions are defined as tetra - through octa - chlorinated dibenzo-p-dioxins and dibenzofurans (40 CFR 60.51b).
- (i) Nitrogen oxides - 205 parts per million by volume (ppmv) corrected to seven percent (7%) oxygen, dry basis.
- (j) Carbon monoxide - 100 parts per million by volume (ppmv) measured at the combustor outlet in conjunction with a measurement of oxygen concentration, corrected to seven percent (7%) oxygen, dry basis, calculated as an arithmetic mean (based on a 4-hour block averaging time).

Compliance with the particulate limit in Condition D.1.3(a) will also satisfy the particulate limit requirement of 27 milligrams per dry standard cubic meter (mg/dscm), corrected to seven percent (7%) oxygen in 40 CFR 60, Subpart Cb.

Compliance with the particulate limit in Condition D.1.3(a) will also satisfy the particulate limit requirement of 0.07 gram per dry standard cubic meter (g/dscm) (0.03 grains per dry standard cubic foot (gr/dscf) in 326 IAC 6-1-2. The table below is provided primarily for informational purposes. The table contrasts the Permittee's emission limits from its previous operating permit with the source's applicable NSPS limits.

	<b>Emission limits per previous operating permit</b>	<b>Emission limits per 40 CFR 60.30b, Subpart Cb, and 326 IAC 11-7</b>
Particulate Matter	0.01 grains per dry standard cubic foot (gr/dscf), corrected to twelve percent (12%) carbon dioxide	23 mg/dscm, corrected to twelve percent (12%) carbon dioxide
Opacity	10% based on an average of twenty-four (24) consecutive observations recorded at fifteen (15) second intervals	10% based on a 6-minute average
Cadmium	(No previous permit limit)	0.040 milligrams per dry standard cubic meter (mg/dscm) corrected to seven percent (7%) oxygen
Lead	0.001 grains per dry standard cubic foot (gr/dscf), corrected to twelve percent (12%) carbon dioxide averaged over a 3-month period	0.44 milligrams per dry standard cubic meter (mg/dscm) corrected to seven percent (7%) oxygen
Mercury	0.00028 grains per dry standard cubic foot (gr/dscf), corrected to twelve percent (12%) carbon dioxide averaged over a 24-hour rolling period	0.080 milligrams per dry standard cubic meter (mg/dscm); or 15% of the potential mercury emissions concentration corrected to seven percent (7%) oxygen whichever is less stringent
Sulfur Dioxide	(i) 30 parts per million by volume (ppmv), corrected to twelve percent (12%) carbon dioxide when the inlet sulfur dioxide concentration is at or below 150 ppmv corrected to 12% carbon dioxide (ii) Twenty (20) percent of the inlet sulfur dioxide concentration when the inlet sulfur dioxide concentration is above 150 ppmv corrected to 12% carbon dioxide (this equates to 80% reduction efficiency) Averaged over rolling 24-hour periods.	29 parts per million by volume (ppmv); or 20% of the potential sulfur dioxide emission concentration corrected to seven percent (7%) oxygen, dry basis, calculated as a 24-hour daily geometric mean whichever is less stringent
Hydrogen Chloride	(i) 30 parts per million by volume (ppmv), corrected to twelve percent (12%) carbon dioxide when inlet hydrogen chloride is at or below 150 ppmv corrected to 12% carbon dioxide (ii) Twenty (20) percent of the inlet hydrogen chloride concentration when the inlet hydrogen chloride concentration is above 150 ppmv corrected to 12% carbon dioxide (this equates to 80% reduction efficiency) Averaged over rolling 8-hour periods.	29 parts per million by volume (ppmv); or 5% of the potential hydrogen chloride emissions concentration corrected to seven percent (7%) oxygen, dry basis, whichever is less stringent
Dioxins/Furans	(No previous permit limit)	30 nanograms per dry standard cubic meter (ng/dscm)( total mass) corrected to seven percent (7%) oxygen
Nitrogen Oxides	272 parts per million by volume (ppmv), corrected to twelve percent (12%) carbon dioxide	205 parts per million by volume (ppmv) corrected to seven percent (7%) oxygen, dry basis
Carbon Monoxide	135 parts per million by volume (ppmv), corrected to twelve percent (12%) carbon dioxide averaged over rolling 8-hour periods	100 parts per million by volume (ppmv) measured at the combustor outlet in conjunction with a measurement of oxygen concentration, corrected to seven percent (7%) oxygen, dry basis, calculated as an arithmetic mean (based on a 4-hour block averaging time)

#### D.1.4 Incinerators [326 IAC 4-2]

Pursuant to 326 IAC 4-2, the incinerator shall:

- (a) consist of primary and secondary chambers or the equivalent;
- (b) be equipped with a primary burner unless burning wood products;
- (c) comply with 326 IAC 5-1 and 326 IAC 2;

- (d) be maintained properly as specified by the manufacturer and approved by the commissioner;
- (e) be operated according to the manufacturer's recommendations and only burn waste approved by the commissioner;
- (f) comply with other state and/or local rules or ordinances regarding installation and operation of incinerators;
- (g) be operated so that emissions of hazardous material including, but not limited to, viable pathogenic bacteria, dangerous chemicals or gases, or noxious odors are prevented;
- (h) incinerators with a maximum refuse-burning capacity of two hundred (200) or more pounds per hour shall not emit particulate matter in excess of three-tenths (0.3) pounds of particulate matter per one thousand (1,000) pounds of dry exhaust gas at standard conditions corrected to fifty percent (50%) excess air.
- (i) not create a nuisance or a fire hazard.

Compliance with Condition D.1.3(a) shall satisfy the requirement of D.1.4(h).

D.1.5 Carbon Monoxide Emission Limits [326 IAC 9-1-2]

Pursuant to 326 IAC 9-1-2, emissions of carbon monoxide shall be limited to the requirements of 326 IAC 9-1-2(3) unless specific carbon monoxide emission limits have been established in 326 IAC 11, 326 IAC 20, 40 CFR 60, 40 CFR 62, or 40 CFR 63. Compliance with 326 IAC 11-7-3 and 40 CFR 60, Subpart Cb satisfies 326 IAC 9-1-2.

D.1.6 Fugitive Ash Limits [326 IAC 11-7-6] [40 CFR 60, Subpart Cb]

Pursuant to 326 IAC 11-7-6; 40 CFR 60.36b, Subpart Cb; and 40 CFR 60.55b, Subpart Eb as amended by 60FR 45124 (August 25, 1997)

- (a) On and after the date on which the initial performance test is completed or is required to be completed under 40 CFR 60.8 of Subpart A, the Permittee shall not cause to be discharged to the atmosphere visible emissions of combustion ash from an ash conveying system (including conveyor transfer points) in excess of 5 percent of the observation period (i.e., 9 minutes per 3-hour period), as determined by EPA Reference Method 22 observations as specified in 40 CFR 60.58b(k), except as provided in paragraphs (b) and (c) below.
- (b) The emission limit specified in paragraph (a) above does not cover visible emissions discharged inside buildings or enclosures of ash conveying systems; however, the emission limit specified in paragraph (a) above does cover visible emissions discharged to the atmosphere from buildings or enclosures of ash conveying systems.
- (c) The provisions specified in paragraph (a) above do not apply during maintenance and repair of ash conveying systems.

D.1.7 Operation Practices [326 IAC 11-7-4] [40 CFR 60, Subpart Cb]

Pursuant to 326 IAC 11-7-4 and 40 CFR 60.53b(b) and (c), Subpart Eb, as amended by 60 FR 45124 (August 25, 1997).

- (a) **Unit Capacity Limits**  
The Permittee shall not cause the combustors to operate at a load level greater than 110 percent of the maximum demonstrated municipal waste combustor unit load as defined in 40 CFR 60.51b, except as specified in paragraphs (b)(1) and (b)(2) below. The averaging time is specified under 40 CFR 60.58b(i).

- (1) During the annual dioxin/furan performance test and the 2 weeks preceding the annual dioxin/furan performance test, no municipal waste combustor unit load limit is applicable.
  - (2) The municipal waste combustor unit load limit may be waived in accordance with permission granted by the Administrator or delegated State regulatory authority for the purpose of evaluating system performance, testing new technology or control technologies, diagnostic testing, or related activities for the purpose of improving facility performance or advancing the state-of-the-art for controlling facility emissions.
- (b) PM Controls
- The Permittee shall not cause the combustor to operate at a temperature, measured at the particulate matter control device inlet, exceeding seventeen degrees Celsius (17°C) above the maximum demonstrated particulate matter control device temperature (4-hour block arithmetic average) as defined in 40 CFR 60.51b, except as specified in 40 CFR 60.53b(c)(1) and (c)(2). The averaging time of 4 hours is specified under 40 CFR 60.58b(i). The requirements specified in this paragraph apply to each particulate matter control device utilized at the affected facility.
- (1) During the annual dioxin/furan performance test and the 2 weeks preceding the annual dioxin/furan performance test, no particulate matter control device temperature limitations are applicable.
  - (2) The particulate matter control device temperature limits may be waived in accordance with permission granted by the Administrator or delegated State regulatory authority for the purpose of evaluating system performance, testing new technology or control technologies, diagnostic testing, or related activities for the purpose of improving facility performance or advancing the state-of-the-art for controlling facility emissions.

#### D.1.8 Municipal Waste Combustors Operator Training and Certification Requirements

Pursuant to 326 IAC 11-7-5, 40 CFR 60.35b, Subpart Cb and 40 CFR 60.54b Subpart Eb, as amended by 60FR 45124 (August 25, 1997):

- (a) Each chief facility operator and shift supervisor, employed by the Permittee shall obtain and maintain a current provisional operator certification from either the American Society of Mechanical Engineers [QRO-1-1994 (incorporated by reference--see 40 CFR 60.17 of Subpart A)] or a State certification program.
- (b) Each chief facility operator and shift supervisor shall have completed full certification or shall have scheduled a full certification exam with either the American Society of Mechanical Engineers [QRO-1-1994 (incorporated by reference--see 40 CFR 60.17 of Subpart A)] or a State certification program.
- (c) The Permittee shall not allow the combustor to be operated at any time unless one of the following persons is on duty and at the affected facility: A fully certified chief facility operator, a provisionally certified chief facility operator who is scheduled to take the full certification exam according to the schedule specified in 40 CFR 60.54b(b), a fully certified shift supervisor, or a provisionally certified shift supervisor who is scheduled to take the full certification exam according to the schedule specified in 40 CFR 60.54b(b).

If one of the persons listed in 40 CFR 60.54b(c) must leave the affected facility during their operating shift, a provisionally certified control room operator who is onsite at the affected facility may fulfill the requirement in 40 CFR 60.54b(c).



- (d) All chief facility operators, shift supervisors, and control room operators for the Permittee's combustors must complete the EPA or State municipal waste combustor operator training course no later than compliance date for existing sources is September 1, 1999.
- (e) The Permittee shall develop and update on a yearly basis a site-specific operating manual that shall, at a minimum, address the elements of municipal waste combustor unit operation specified in paragraphs (1) through (11) below:
  - (1) A summary of the applicable standards under 40 CFR 60, Subpart Cb;
  - (2) A description of basic combustion theory applicable to a municipal waste combustor unit;
  - (3) Procedures for receiving, handling, and feeding municipal solid waste;
  - (4) Municipal waste combustor unit startup, shutdown, and malfunction procedures;
  - (5) Procedures for maintaining proper combustion air supply levels;
  - (6) Procedures for operating the municipal waste combustor unit within the standards established under 40 CFR 60, Subpart Cb;
  - (7) Procedures for responding to periodic upset or off-specification conditions;
  - (8) Procedures for minimizing particulate matter carryover;
  - (9) Procedures for handling ash;
  - (10) Procedures for monitoring municipal waste combustor unit emissions; and
  - (11) Reporting and record keeping procedures.
- (f) The Permittee shall establish a training program to review the operating manual according to the schedule specified in paragraphs (f)(1) and (f)(2) of this section with each person who has responsibilities affecting the operation of an affected facility including, but not limited to, chief facility operators, shift supervisors, control room operators, ash handlers, maintenance personnel, and crane/load handlers.
  - (1) Each person specified in paragraph (f) of this section shall undergo initial training no later than the date specified in paragraph (f)(1)(A) or (f)(1)(B) below whichever is later.
    - (A) September 1, 1999;
    - (B) The date prior to the day the person assumes responsibilities affecting municipal waste combustor unit operation; or
    - (C) December 19, 1996.
  - (2) Annually, following the initial review required by paragraph (f)(1) of this section.
- (g) The operating manual required by paragraph (e) of this section shall be kept in a readily accessible location for all persons required to undergo training under paragraph (f) of this section. The operating manual and records of training shall be available for inspection by the EPA or its delegated enforcement agency upon request.

#### D.1.9 Mass Emission Rates

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- (a) Pursuant to Construction Permit PSD (49) 1602, issued April 23, 1986, the total non-methane hydrocarbon (VOC) mass emission rate shall not exceed 3.30 pounds per hour and an annual emission rate of 14.45 tons per twelve (12) consecutive months while combusting only municipal waste.
- (b) Pursuant to Construction Permit PSD (49) 1602, issued April 23, 1986, nitrogen dioxide mass emission rate shall not exceed 151.2 pounds per hour per combustion unit and an annual emission rate of 662.25 tons per twelve (12) consecutive months while combusting only municipal waste.

- (c) Pursuant to Construction Permit PSD (49) 1602, issued April 23, 1986, carbon monoxide mass emission rate shall not exceed 45.4 pounds per hour per combustion unit and an annual emission rate of 198.85 tons per twelve (12) consecutive months while combusting only municipal waste.
- (d) Pursuant to Construction Permit PSD (49) 1602, issued April 23, 1986, lead mass emission rate, averaged over a three month period, shall not exceed 2.01 pounds for three (3) combustion units.
- (e) Pursuant to Construction Permit PSD (49) 1602, issued April 23, 1986, mercury mass emission rate, averaged over all 24-hour rolling periods, shall not exceed a mass emission rate of 0.54 pounds per hour for the three (3) combustion units.

#### D.1.10 Natural Gas Capacity

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The facility is limited to an annual capacity factor of ten percent (10%) or less for natural gas use.

Compliance with this limit will render the requirements of 40 CFR 60.44b, Subpart Db, not applicable.

#### D.1.11 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

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A Preventive Maintenance Plan, in accordance with Section C - Preventive Maintenance Plan, of this permit, is required for this facility and the control devices.

### Compliance Determination Requirements

#### D.1.12 Compliance and Performance Testing [326 IAC 11-7-7] [40 CFR 60, Subpart Cb]

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Pursuant to Significant Source Modification 097-10550-00123, issued October 13, 1999, 326 IAC 11-7-7, 326 IAC 3-5, 326 IAC 3-6, 40 CFR 60.38b, Subpart Cb, and 40 CFR 60.58b, Subpart Eb as amended by 60FR 45124 (August 25, 1997) unless otherwise specified shall meet the following requirements:

- (a) Startup/Shutdown and Malfunction  
The provisions for startup, shutdown, and malfunction is provided in paragraphs (a)(1) below.
  - (1) The standards under this permit apply at all times except during periods of startup, shutdown, or malfunction. Duration of startup, shutdown, or malfunction periods are limited to 3 hours per occurrence, except as provided in paragraph (E) below.
    - (A) The startup period commences when the affected facility begins the continuous burning of municipal solid waste and does not include any warmup period when the affected facility is combusting fossil fuel or other nonmunicipal solid waste fuel, and no municipal solid waste is being fed to the combustor.
    - (B) Continuous burning is the continuous, semicontinuous, or batch feeding of municipal solid waste for purposes of waste disposal, energy production, or providing heat to the combustion system in preparation for waste disposal or energy production. The use of municipal solid waste solely to provide thermal protection of the grate or hearth during the startup period when municipal solid waste is not being fed to the grate is not considered to be continuous burning.
    - (C) The shutdown period, for the combustor begins when the continuous feeding of solid waste is ceased and the subject unit's feedchute

damper is shut. The operator verifies that the shutdown is complete by visually inspecting the grates to make sure that the fires are out and oxygen is seventeen percent (17%) or greater.

- (D) Malfunction, as defined under 40 CFR 60.2, is any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.
  - (E) Pursuant to Section 60.58b(a)(1)(iii); Subpart Cb, as amended by 66 FR 57823 (November 16, 2001), for the purpose of compliance with the carbon monoxide emission limits in Sec.60.53b(a), if a loss of boiler water level control (e.g., boiler waterwall tube failure) or a loss of combustion air control (e.g., loss of combustion air fan, induced draft fan, combustion grate bar failure) is determined to be a malfunction, the duration of the malfunction period is limited to 15 hours per occurrence.
- (b) CEMS (oxygen content of flue gas)  
The Permittee shall install, calibrate, maintain, and operate a continuous emission monitoring system and record the output of the system for measuring the oxygen content of the flue gas at each location where carbon monoxide, sulfur dioxide, or nitrogen oxides emissions are monitored and shall comply with the test procedures and test methods specified in paragraphs (b)(1) through (b)(5) below.
- (1) The span value of the oxygen monitor shall be 25 percent oxygen.
  - (2) The monitor shall be installed, evaluated, and operated in accordance with 40 CFR 60.13 of Subpart A.
  - (3) The initial performance evaluation shall be completed no later than 180 days after the date of initial startup of the affected facility, as specified under 40 CFR 60.8 of Subpart A.
  - (4) The monitor shall conform to Performance Specification 3 in appendix B of 40 CFR Part 60 except for Section 2.3 (relative accuracy requirement).
  - (5) The quality assurance procedures of appendix F of 40 CFR Part 60 except for Section 5.1.1 (relative accuracy test audit) shall apply to the monitor.
- (c) Particulate Matter and Opacity  
The procedures and test methods specified in paragraphs (c)(1) through (c)(10) below shall be used to determine compliance with the emission limits for particulate matter and opacity under 40 CFR 60.33b(a)(1) and (a)(2).
- (1) The EPA Reference Method 1 shall be used to select sampling site and number of traverse points.
  - (2) The EPA Reference Method 3, 3A, or 3B, as applicable, shall be used for gas analysis.
  - (3) The EPA Reference Method 5 shall be used for determining compliance with the particulate matter emission limit. The minimum sample volume shall be 1.7 cubic meters. The probe and filter holder heating systems in the sample train shall be set to provide a gas temperature no greater than 160+/-14 degree Celsius. An oxygen or carbon dioxide measurement shall be obtained simultaneously with each Method 5 run.

- (4) The Permittee may request that compliance with the particulate matter emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility shall be established as specified in paragraph (b)(6) of 40 CFR 60.58b.
  - (5) As specified under 40 CFR 60.8 of Subpart A, all performance tests shall consist of three test runs. The average of the particulate matter emission concentrations from the three test runs is used to determine compliance.
  - (6) In accordance with paragraphs (c)(7) and (c)(10) of this section, EPA Reference Method 9 shall be used for determining compliance with the opacity limit except as provided under 40 CFR 60.11(e) of Subpart A.
  - (7) The Permittee shall conduct an initial performance test for particulate matter emissions and opacity as required under 40 CFR 60.8 of Subpart A. (The Permittee has satisfied this condition.) An initial performance test for PM and opacity was conducted on April 17-24, 1992.
  - (8) The Permittee shall install, calibrate, maintain, and operate a continuous opacity monitoring system for measuring opacity and shall follow the methods and procedures specified in paragraphs (c)(8)(A) through (c)(8)(C) below.
    - (A) The output of the continuous opacity monitoring system shall be recorded on a 6-minute average basis.
    - (B) The continuous opacity monitoring system shall be installed, evaluated, and operated in accordance with 40 CFR 60.13 of Subpart A.
    - (C) The continuous opacity monitoring system shall conform to Performance Specification 1 in Appendix B of this part.
  - (9) Following the date that the initial performance test for particulate matter is completed or is required to be completed under 40 CFR 60.8 of Subpart A of this part for a combustor, the Permittee shall conduct a performance test for particulate matter on an annual basis (no more than 12 calendar months following the previous performance test).
  - (10) Following the date that the initial performance test for opacity is completed or is required to be completed under 40 CFR 60.8 of Subpart A for a combustor, the Permittee shall conduct a performance test for opacity on an annual basis (no more than 12 calendar months following the previous performance test) using the test method specified in paragraph (c)(6) of this section.
- (d) Cadmium, Lead, and Mercury
- The procedures and test methods specified in paragraphs (d)(1) and (d)(2) below shall be used to determine compliance with the emission limits for cadmium, lead, and mercury under 40 CFR 60.33b(a)(2) and (a)(3).
- (1) The procedures and test methods specified in paragraphs (d)(1)(A) through (d)(1)(G) below shall be used to determine compliance with the emission limits for cadmium and lead under 40 CFR 60.33b(a)(2).
    - (A) The EPA Reference Method 1 shall be used for determining the location and number of sampling points.

- (B) The EPA Reference Method 3, 3A, or 3B, as applicable, shall be used for flue gas analysis.
  - (C) The EPA Reference Method 29 shall be used for determining compliance with the cadmium and lead emission limits.
  - (D) An oxygen or carbon dioxide measurement shall be obtained simultaneously with each Method 29 test run for cadmium and lead required under paragraph (d)(1)(C) of this section.
  - (E) The Permittee may request that compliance with the cadmium or lead emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility shall be established as specified in paragraph (b)(6) of 40 CFR 60.58b.
  - (F) All performance tests shall consist of a minimum of three test runs conducted under representative full load operating conditions. The average of the cadmium or lead emission concentrations from three test runs shall be used to determine compliance.
  - (G) Following the date of the initial performance test or the date on which the initial performance test is required to be completed under 40 CFR 60.8 of Subpart A, the Permittee shall conduct a performance test for compliance with the emission limits for cadmium and lead on an annual basis (no more than 12 calendar months following the previous performance test).
- (2) The procedures and test methods specified in paragraphs (d)(2)(A) through (d)(2)(J) below shall be used to determine compliance with the mercury emission limit under 40 CFR 60.33b(a)(3).
- (A) The EPA Reference Method 1 shall be used for determining the location and number of sampling points.
  - (B) The EPA Reference Method 3, 3A, or 3B, as applicable, shall be used for flue gas analysis.
  - (C) The EPA Reference Method 29 shall be used to determine the mercury emission concentration. The minimum sample volume when using Method 29 for mercury shall be 1.7 cubic meters.
  - (D) An oxygen (or carbon dioxide) measurement shall be obtained simultaneously with each Method 29 test run for mercury required under paragraph (d)(2)(C) of this section.
  - (E) The percent reduction in the potential mercury emissions (%PHg) is computed using equation 1:

$$(\%P_{Hg}) = ((E_i - E_o) / E_i) \times 100$$

where:

$\%P_{Hg}$  = percent reduction of the potential mercury emissions achieved.

$E_i$  = potential mercury emission concentration measured at the control device inlet, corrected to 7 percent oxygen (dry basis).  
 $E_o$  = controlled mercury emission concentration measured at the mercury control device outlet, corrected to 7 percent oxygen (dry basis).

- (F) All performance tests shall consist of a minimum of three test runs conducted under representative full load operating conditions. The average of the mercury emission concentrations or percent reductions from three test runs or more is used to determine compliance.
  - (G) The Permittee may request that compliance with the mercury emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility shall be established as specified in paragraph (b)(6) of 40 CFR 60.58b.
  - (H) The Permittee shall conduct an initial performance test for mercury emissions as required under 40 CFR 60.8 of Subpart A.
  - (I) Following the date that the initial performance test for mercury is completed or is required to be completed under 40 CFR 60.8 of Subpart A, the Permittee shall conduct a performance test for mercury emissions on an annual basis (no more than 12 calendar months from the previous performance test).
  - (J) The Permittee shall follow the procedures specified in paragraph (I) of 40 CFR 60.58b for measuring and calculating carbon usage where activated carbon injection is used to comply with the mercury emission limit.
- (e) Sulfur Dioxide  
The procedures and test methods specified in paragraphs (e)(1) through (e)(13) of this section shall be used for determining compliance with the sulfur dioxide emission limit under 40 CFR 60.33b(b)(1).
- (1) The EPA Reference Method 19, Section 4.3, shall be used to calculate the daily geometric average sulfur dioxide emission concentration.
  - (2) The EPA Reference Method 19, Section 5.4, shall be used to determine the daily geometric average percent reduction in the potential sulfur dioxide emission concentration.
  - (3) The Permittee may request that compliance with the sulfur dioxide emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility shall be established as specified in paragraph (b)(6) of this section.
  - (4) The Permittee shall conduct an initial performance test for sulfur dioxide emissions as required under 40 CFR 60.8 of Subpart A. Compliance with the sulfur dioxide emission limit (concentration or percent reduction) shall be determined by using the continuous emission monitoring system specified in paragraph (e)(5) below to measure sulfur dioxide and calculating a 24-hour daily geometric average emission concentration or a 24-hour daily geometric average

percent reduction using EPA Reference Method 19, Sections 4.3 and 5.4, as applicable.

- (5) The Permittee shall install, calibrate, maintain, and operate a continuous emission monitoring system for measuring sulfur dioxide emissions discharged to the atmosphere and record the output of the system.
- (6) Following the date that the initial performance test for sulfur dioxide is completed or is required to be completed under 40 CFR 60.8 of Subpart A of this part, compliance with the sulfur dioxide emission limit shall be determined based on the 24-hour daily geometric average of the hourly arithmetic average emission concentrations using continuous emission monitoring system outlet data if compliance is based on an emission concentration, or continuous emission monitoring system inlet and outlet data if compliance is based on a percent reduction.
- (7) At a minimum, valid continuous monitoring system hourly averages shall be obtained as specified in paragraphs (e)(7)(A) and (e)(7)(B) for 75 percent of the operating hours per day for 90 percent of the operating days per calendar quarter that the affected facility is combusting municipal solid waste.
  - (A) At least two data points per hour shall be used to calculate each 1-hour arithmetic average.
  - (B) Each sulfur dioxide 1-hour arithmetic average shall be corrected to 7 percent oxygen on an hourly basis using the 1-hour arithmetic average of the oxygen (or carbon dioxide) continuous emission monitoring system data.
- (8) The 1-hour arithmetic averages required under paragraph (e)(6) of this section shall be expressed in parts per million corrected to 7 percent oxygen (dry basis) and used to calculate the 24-hour daily geometric average emission concentrations and daily geometric average emission percent reductions. The 1-hour arithmetic averages shall be calculated using the data points required under 40 CFR 60.13(e)(2) of Subpart A of this part.
- (9) All valid continuous emission monitoring system data shall be used in calculating average emission concentrations and percent reductions even if the minimum continuous emission monitoring system data requirements of paragraph (e)(7) of this section are not met.
- (10) The procedures under 40 CFR 60.13 of Subpart A of this part shall be followed for installation, evaluation, and operation of the continuous emission monitoring system.
- (11) The continuous emission monitoring system shall be operated according to Performance Specification 2 in Appendix B of 40 CFR Part 60.
  - (A) During each relative accuracy test run of the continuous emission monitoring system required by Performance Specification 2 in Appendix B of 40 CFR Part 60, sulfur dioxide and oxygen (or carbon dioxide) data shall be collected concurrently (or within a 30- to 60-minute period) by both the continuous emission monitors and the test methods specified in paragraphs (e)(11)(A)(i) and (e)(11)(B) below.
    - (i) For sulfur dioxide, EPA Reference Method 6, 6A, or 6C shall be used.

- (ii) For oxygen (or carbon dioxide), EPA Reference Method 3, 3A or 3B, as applicable, shall be used.
  - (B) The span value of the continuous emissions monitoring system at the inlet to the sulfur dioxide control device shall be 125 percent of the maximum estimated hourly potential sulfur dioxide emissions of the municipal waste combustor unit. The span value of the continuous emission monitoring system at the outlet of the sulfur dioxide control device shall be 50 percent of the maximum estimated hourly potential sulfur dioxide emissions of the municipal waste combustor unit.
- (12) Quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with Procedure 1 in Appendix F of 40 CFR 60.
- (13) When sulfur dioxide emissions data are not obtained because of continuous emission monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, emissions data shall be obtained by using other monitoring systems as approved by the IDEM, OAQ or EPA Reference Method 19 to provide, as necessary, valid emissions data for a minimum of 75 percent of the hours per day that the affected facility is operated and combusting municipal solid waste for 90 percent of the days per calendar quarter that the affected facility is operated and combusting municipal solid waste.
- (f) **Hydrogen Chloride**  
The procedures and test methods specified in paragraphs (f)(1) through (f)(7) of this section shall be used for determining compliance with the hydrogen chloride emission limit under 40 CFR 60.33b(b)(2).
- (1) The EPA Reference Method 26 or 26A, as applicable, shall be used to determine the hydrogen chloride emission concentration. The minimum sampling time for Method 26 shall be 1 hour.
  - (2) An oxygen (or carbon dioxide) measurement shall be obtained simultaneously with each Method 26 test run for hydrogen chloride required by paragraph (f)(1) of this section.
  - (3) The percent reduction in potential hydrogen chloride emissions ( $\% P_{HCl}$ ) is computed using equation 2:  
$$(\%P_{HCl}) = ((E_i - E_o) / E_i) \times 100$$

where:

    - $\%P_{HCl}$  = percent reduction of the potential hydrogen chloride emissions achieved.
    - $E_i$  = potential hydrogen chloride emission concentration measured at the control device inlet, corrected to 7 percent oxygen (dry basis).
    - $E_o$  = controlled hydrogen chloride emission concentration measured at the control device outlet, corrected to 7 percent oxygen (dry basis).
  - (4) The Permittee may request that compliance with the hydrogen chloride emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility shall be established as specified in paragraph (b)(6) of 40 CFR 60.58b.



- (5) As specified under 40 CFR 60.8 of Subpart A, all performance tests shall consist of the average of three test runs. The average of the hydrogen chloride emission concentrations or percent reductions from the three test runs is used to determine compliance.
- (6) The Permittee shall conduct an initial performance test for hydrogen chloride as required under 40 CFR 60.8 of Subpart A.
- (7) Following the date that the initial performance test for hydrogen chloride is completed or is required to be completed under 40 CFR 60.8 of Subpart A, the Permittee shall conduct a performance test for hydrogen chloride emissions on an annual basis (no more than 12 calendar months following the previous performance test).
- (g) Dioxin/Furan  
The procedures and test methods specified in paragraphs (g)(1) through (g)(9) of this section shall be used to determine compliance with the limits for dioxin/furan emissions under 40 CFR 60.33b(c).
  - (1) The EPA Reference Method 1 shall be used for determining the location and number of sampling points.
  - (2) The EPA Reference Method 3, 3A, or 3B, as applicable, shall be used for flue gas analysis.
  - (3) The EPA Reference Method 23 shall be used for determining the dioxin/furan emission concentration.
    - (A) The minimum sample time shall be 4 hours per test run.
    - (B) An oxygen (or carbon dioxide) measurement shall be obtained simultaneously with each Method 23 test run for dioxins/furans.
  - (4) The Permittee shall conduct an initial performance test for dioxin/furan emissions in accordance with paragraph (g)(3) of this section, as required under 40 CFR 60.8 of Subpart A.
  - (5) Following the date that the initial performance test for dioxins/furans is completed or is required to be completed under 40 CFR 60.8 of Subpart A, the Permittee shall conduct performance tests for dioxin/furan emissions in accordance with paragraph (g)(3) above, according to one of the schedules specified in paragraphs (g)(5)(A) through (g)(5)(B) below.
    - (A) For affected facilities, performance tests shall be conducted on an annual basis (no more than 12 calendar months following the previous performance test).
    - (B) Where all performance tests over a 2-year period indicate that dioxin/furan emissions are less than or equal to 15 nanograms per dry standard cubic meter total mass, corrected to 7 percent oxygen, for all combustors located within a municipal waste combustor plant, the Permittee may elect to conduct annual performance tests for one affected facility (i.e., unit) per year at the municipal waste combustor plant. At a minimum, a performance test for dioxin/furan emissions shall be conducted annually (no more than 12 months following the previous performance test) for one affected facility at the municipal waste combustor plant. Each year a different affected facility at the

municipal waste combustor plant shall be tested, and the affected facilities at the plant shall be tested in sequence (e.g., unit 1, unit 2, unit 3, as applicable). If each annual performance test continues to indicate a dioxin/furan emission level less than or equal to 15 nanograms per dry standard cubic meter corrected to seven percent (7%) oxygen, the Permittee may continue conducting a performance test on only one affected facility per year. If any annual performance test indicates a dioxin/furan emission level greater than 15 nanograms per dry standard cubic meter corrected to seven percent (7%) oxygen, performance tests thereafter shall be conducted annually on all affected facilities at the plant until all annual performance tests for all affected facilities at the plant over a 2-year period indicate a dioxin/furan emission level less than or equal to 15 nanograms per dry standard cubic meter corrected to seven percent (7%) oxygen.

- (6) If the Permittee selects to follow the performance testing schedule specified in paragraph (g)(5)(B) of this section then the Permittee shall follow the procedures specified in 40 CFR 60.59b(g)(4) for reporting the selection of this schedule.
- (7) The Permittee shall follow the procedures specified in paragraph (k) below for measuring and calculating the carbon usage rate where activated carbon is used to comply with the dioxin/furan emission limits specified in 40 CFR 60.33b(c) or the dioxin/furan emission level specified in paragraph (g)(5)(B) above.
- (8) The Permittee may request that compliance with the dioxin/furan emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility shall be established as specified in paragraph (b)(6) of 40 CFR 60.58b.
- (9) As specified under 40 CFR 60.8 of Subpart A of this part, all performance tests shall consist of a minimum of three test runs. The average of the dioxin/furan emission concentrations from the three test runs is used to determine compliance.
- (h) Nitrogen Oxides  
The procedures and test methods specified in paragraphs (h)(1) through (h)(12) of this section shall be used to determine compliance with the nitrogen oxides emission limit for affected facilities under 40 CFR 60.33b(d).
  - (1) The EPA Reference Method 19, Section 4.1, shall be used for determining the daily arithmetic average nitrogen oxides emission concentration.
  - (2) A Permittee may request that compliance with the nitrogen oxides emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility shall be established as specified in paragraph (b)(6) of 40 CFR 60.58b.
  - (3) The Permittee subject to the nitrogen oxides limit under 40 CFR 60.33b(d) shall conduct an initial performance test for nitrogen oxides as required under 40 CFR 60.8 of Subpart A of this part. Compliance with the nitrogen oxides emission limit shall be determined by using the continuous emission monitoring system specified in paragraph (h)(4) of this section for measuring nitrogen oxides and calculating a 24-hour daily arithmetic average emission concentration using EPA Reference Method 19, Section 4.1.

- (4) The Permittee subject to the nitrogen oxides emission limit under 40 CFR 60.33b(d) shall install, calibrate, maintain, and operate a continuous emission monitoring system for measuring nitrogen oxides discharged to the atmosphere, and record the output of the system.
- (5) Following the date that the initial performance test for nitrogen oxides is completed or is required to be completed under 40 CFR 60.8 of Subpart A of this part, compliance with the emission limit for nitrogen oxides required under 40 CFR 60.33b(d) shall be determined based on the 24-hour daily arithmetic average of the hourly emission concentrations using continuous emission monitoring system outlet data.
- (6) At a minimum, valid continuous emission monitoring system hourly averages shall be obtained as specified in paragraphs (h)(6)(A) and (h)(6)(B) below for 75 percent of the operating hours per day for 90 percent of the operating days per calendar quarter that the affected facility is combusting municipal solid waste.
  - (A) At least 2 data points per hour shall be used to calculate each 1-hour arithmetic average.
  - (B) Each nitrogen oxides 1-hour arithmetic average shall be corrected to 7 percent oxygen on an hourly basis using the 1-hour arithmetic average of the oxygen (or carbon dioxide) continuous emission monitoring system data.
- (7) The 1-hour arithmetic averages required by paragraph (h)(5) of 40 CFR 60.58b shall be expressed in parts per million by volume (dry basis) and used to calculate the 24-hour daily arithmetic average concentrations. The 1-hour arithmetic averages shall be calculated using the data points required under 40 CFR 60.13(e)(2) of Subpart A of 40 CFR Part 60.
- (8) All valid continuous emission monitoring system data must be used in calculating emission averages even if the minimum continuous emission monitoring system data requirements of paragraph (h)(6) of 40 CFR 60.58b are not met.
- (9) The procedures under 40 CFR 60.13 of Subpart A of this part shall be followed for installation, evaluation, and operation of the continuous emission monitoring system.
- (10) The Permittee shall operate the continuous emission monitoring system according to Performance Specification 2 in Appendix B of this part and shall follow the procedures and methods specified in paragraphs (h)(10)(A) and (h)(10)(B) of this section.
  - (A) During each relative accuracy test run of the continuous emission monitoring system required by Performance Specification 2 of Appendix B of this part, nitrogen oxides and oxygen (or carbon dioxide) data shall be collected concurrently (or within a 30- to 60-minute period) by both the continuous emission monitors and the test methods specified in paragraphs (h)(10)(A)(i) and (h)(10)(B)(i) of this section.
    - (i) For nitrogen oxides, EPA Reference Method 7, 7A, 7C, 7D, or 7E shall be used.

- (ii) For oxygen (or carbon dioxide), EPA Reference Method 3, 3A or 3B, as applicable, shall be used.
  - (B) The span value of the continuous emission monitoring system shall be 125 percent of the maximum estimated hourly potential nitrogen oxide emissions of the municipal waste combustor unit.
- (11) Quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with procedure 1 in appendix F of 40 CFR 60.
- (12) When nitrogen oxides continuous emissions data are not obtained because of continuous emission monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, emissions data shall be obtained using other monitoring systems as approved by the Administrator or EPA Reference Method 19 to provide, as necessary, valid emissions data for a minimum of 75 percent of the hours per day for 90 percent of the days per calendar quarter the unit is operated and combusting municipal solid waste.
- (i) Operating Practices (carbon monoxide, capacity limits, and PM controls)  
The procedures specified in paragraphs (i)(1) through (i)(11) below shall be used for determining compliance with the operating requirements under 40 CFR 60.34b.
- (1) Compliance with the carbon monoxide emission limits in 40 CFR 60.34b(a) shall be determined using a 4-hour block arithmetic average.
  - (2) The Permittee shall install, calibrate, maintain, and operate a continuous emission monitoring system for measuring carbon monoxide at the combustor outlet and record the output of the system and shall follow the procedures and methods specified in paragraphs (i)(2)(A) through (i)(2)(C) of this section.
    - (A) The continuous emission monitoring system shall be operated according to Performance Specification 4A in appendix B of 40 CFR Part 60.
    - (B) During each relative accuracy test run of the continuous emission monitoring system required by Performance Specification 4A in appendix B of 40 CFR Part 60, carbon monoxide and oxygen (or carbon dioxide) data shall be collected concurrently (or within a 30- to 60-minute period) by both the continuous emission monitors and the test methods specified in paragraphs (i)(2)(B)(i) and (i)(2)(B)(ii) below.
      - (i) For carbon monoxide, EPA Reference Method 10, 10A, or 10B shall be used.
      - (ii) For oxygen (or carbon dioxide), EPA Reference Method 3, 3A or 3B, as applicable, shall be used.
    - (C) The span value of the continuous emission monitoring system shall be 125 percent of the maximum estimated hourly potential carbon monoxide emissions of the municipal waste combustor unit.
  - (3) The 4-hour block average specified in paragraphs (i)(1) above shall be calculated from 1-hour arithmetic averages expressed in parts per million by volume corrected to 7 percent oxygen (dry basis). The 1-hour arithmetic averages shall be calculated using the data points generated by the continuous emission monitoring system. At least two data points shall be used to calculate each 1-hour arithmetic average.

- (4) A Permittee may request that compliance with the carbon monoxide emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility shall be established as specified in paragraph (b)(6) of 40 CFR 60.58b.
- (5) The procedures specified in paragraphs (i)(5)(A) through (i)(5)(D) below shall be used to determine compliance with load level requirements under 40 CFR 60.34b(b).
  - (A) The Permittee with steam generation capability shall install, calibrate, maintain, and operate a steam flow meter or a feedwater flow meter; measure steam (or feedwater) flow in kilograms per hour (or pounds per hour) on a continuous basis; and record the output of the monitor. Steam (or feedwater) flow shall be calculated in 4-hour block arithmetic averages.
  - (B) The method included in the "American Society of Mechanical Engineers Power Test Codes: Test Code for Steam Generating Units, Power Test Code 4.1--1964 (R1991)" section 4 (incorporated by reference, see 40 CFR 60.17 of Subpart A) shall be used for calculating the steam (or feedwater) flow required under paragraph (i)(5)(A) of this section. The recommendations in "American Society of Mechanical Engineers Interim Supplement 19.5 on Instruments and Apparatus: Application, Part II of Fluid Meters, 6th edition (1971)," chapter 4 (incorporated by reference--see 40 CFR 60.17 of Subpart A) shall be followed for design, construction, installation, calibration, and use of nozzles and orifices except as specified in (i)(5)(C) of this section.
  - (C) Measurement devices such as flow nozzles and orifices are not required to be recalibrated after they are installed.
  - (D) All signal conversion elements associated with steam (or feedwater flow) measurements must be calibrated according to the manufacturer's instructions before each dioxin/furan performance test, and at least once per year.
- (6) To determine compliance with the maximum particulate matter control device temperature requirements under 40 CFR 60.34b(b), the Permittee shall install, calibrate, maintain, and operate a device for measuring on a continuous basis the temperature of the flue gas stream at the inlet to each particulate matter control device utilized by the affected facility. Temperature shall be calculated in 4-hour block arithmetic averages.
- (7) The maximum demonstrated municipal waste combustor unit load shall be determined during the initial performance test for dioxins/furans and each subsequent performance test during which compliance with the dioxin/furan emission limit specified in 40 CFR 60.33b(c) is achieved. The maximum demonstrated municipal waste combustor unit load shall be the highest 4-hour arithmetic average load achieved during four consecutive hours during the most recent test during which compliance with the dioxin/furan emission limit was achieved.
- (8) For each particulate matter control device employed at the affected facility, the maximum demonstrated particulate matter control device temperature shall be determined during the initial performance test for dioxins/furans and each subsequent performance test during which compliance with the dioxin/furan

emission limit specified in 40 CFR 60.33b(c) is achieved. The maximum demonstrated particulate matter control device temperature shall be the highest 4-hour arithmetic average temperature achieved at the particulate matter control device inlet during four consecutive hours during the most recent test during which compliance with the dioxin/furan limit was achieved.

- (9) At a minimum, valid continuous emission monitoring system hourly averages shall be obtained as specified in paragraphs (i)(9)(A) and (i)(9)(B) below for 75 percent of the operating hours per day for 90 percent of the operating days per calendar quarter that the affected facility is combusting municipal solid waste.
  - (A) At least two data points per hour shall be used to calculate each 1-hour arithmetic average.
  - (B) At a minimum, each carbon monoxide 1-hour arithmetic average shall be corrected to 7 percent oxygen on an hourly basis using the 1-hour arithmetic average of the oxygen (or carbon dioxide) continuous emission monitoring system data.
- (10) All valid continuous emission monitoring system data must be used in calculating the parameters specified under paragraph (i) of 40 CFR 60.58b even if the minimum data requirements of paragraph (i)(9) above are not met. When carbon monoxide continuous emission data are not obtained because of continuous emission monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, emissions data shall be obtained using other monitoring systems as approved by the Administrator or EPA Reference Method 10 to provide, as necessary, the minimum valid emission data.
- (11) Quarterly accuracy determinations and daily calibration drift tests for the carbon monoxide continuous emission monitoring system shall be performed in accordance with procedure 1 in appendix F of 40 CFR 60.
- (j) Fugitive Ash Emissions  
The procedures specified in paragraphs (j)(1) through (j)(4) below shall be used for determining compliance with the fugitive ash emission limit under 40 CFR 60.55b.
  - (1) The EPA Reference Method 22 shall be used for determining compliance with the fugitive ash emission limit under 40 CFR 60.55b. The minimum observation time shall be a series of three 1-hour observations. The observation period shall include times when the facility is transferring ash from the municipal waste combustor unit to the area where ash is stored or loaded into containers or trucks.
  - (2) The average duration of visible emissions per hour shall be calculated from the three 1-hour observations. The average shall be used to determine compliance with 40 CFR 60.55b.
  - (3) The Permittee shall conduct an initial performance test for fugitive ash emissions as required under 40 CFR 60.8 of Subpart A of 40 CFR Part 60.
  - (4) Following the date that the initial performance test for fugitive ash emissions is completed under 40 CFR 60.8 of Subpart A of 40 CFR Part 60 for an affected facility, the Permittee shall conduct a performance test for fugitive ash emissions on an annual basis (no more than 12 calendar months following the previous performance test).

(k) Carbon Injection

The Permittee shall follow the procedures specified in paragraphs (k)(1) through (k)(3) below where activated carbon injection is used to comply with the mercury emission limit under 40 CFR 60.33b(a), or the dioxin/furan emission limits under 40 CFR 60.33b(c), or the dioxin/furan emission level specified in 40 CFR 60.38b(b).

- (1) During the performance tests for dioxins/furans and mercury, as applicable, the Permittee shall estimate an average carbon mass feed rate based on carbon injection system operating parameters such as the screw feeder speed, hopper volume, hopper refill frequency, or other parameters appropriate to the feed system being employed, as specified in paragraphs (k)(1)(A) and (k)(1)(B) below.
  - (A) An average carbon mass feed rate in pounds per hour shall be estimated on the average time period of all the test runs during the most recent performance test for mercury emissions and each subsequent performance test for mercury emissions.
  - (B) An average carbon mass feed rate in pounds per hour shall be estimated on the average time period of all the test runs during the most recent performance test for dioxin/furan emissions and each subsequent performance test for dioxin/furan emissions.
- (2) During operation of the affected facility, the carbon injection system operating parameter(s) that are the primary indicator(s) of the carbon mass feed rate (e.g., screw feeder setting) must equal or exceed the level(s) documented during the performance tests specified under paragraphs (k)(1)(A) and (k)(1)(B) above.
- (3) The Permittee shall estimate the total carbon usage of the plant (kilograms or pounds) for each calendar quarter by two independent methods, according to the procedures in paragraphs (k)(3)(A) and (k)(3)(B) below.
  - (A) The weight of carbon delivered to the plant.
  - (B) Estimate the average carbon mass feed rate in pounds per hour for each hour of operation for each affected facility based on the parameters specified under paragraph (k)(1) above, and sum the results for all affected facilities at the plant for the total number of hours of operation during the calendar quarter.

The Permittee intends to utilize a gravimetric feeder or equivalent to estimate carbon mass feed rate as an average based on the average time period of all the test runs during the most recent performance test for the carbon injection system to comply with the mercury emission limit under 40 CFR 60.33b(a), or the dioxin/furan emission limits under 40 CFR 60.33b(c), or the dioxin/furan emission level specified in 40 CFR 60.38b(b).

D.1.13 Operation of Equipment [326 IAC 2-7-6(6)]

- (a) The selective noncatalytic reduction (SNCR) system for NO<sub>x</sub> control shall be in operation and control emissions from the municipal waste combustors at all times when the facility is in operation.
- (b) Pursuant to Installation Permit, issued March 25, 1986 and Operation Permit, issued May 12, the Permittee shall operate the spray dryer absorber and the fabric filter prior to charging any MSW, during combustion of material and during shutdown until all material remaining on the grate is combusted.

- (c) Pursuant to Installation Permit, issued March 25, 1986 and Operation Permit, issued May 12, 1989, the Permittee shall operate continuous monitoring equipment for sulfur dioxide, oxygen, and carbon monoxide at the economizer outlet, and sulfur dioxide and opacity at the fabric filter outlet.
- (d) Pursuant to Installation Permit, issued March 25, 1986 and Operation Permit, issued May 12, 1989, primary combustion air shall be drawn from the tipping floor maintaining a negative air pressure in the building containing the tipping floor and receiving pit.

#### **D.1.14 Mercury Emissions Control System [326 IAC 2-7-6(6)]**

The carbon injection system for mercury control shall be in operation and control emissions from the municipal waste combustors at all times when the facility is in operation.

#### **D.1.15 Testing Requirement [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]**

The Permittee shall perform PM, opacity, Cadmium, Lead, Mercury, Dioxin/Furan, and HCl testing as required by 40 CFR 60, Subpart Cb, and 326 IAC 11-7, as specified in Condition D.1.12.

### **Compliance Monitoring Requirements**

#### **D.1.16 Monitoring of Operations**

Pursuant to 40 CFR 60.50, Subpart E, the Permittee shall record the daily charging rates and hours of operation.

### **Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

#### **D.1.17 Record Keeping and Reporting Requirements for NSPS**

##### **Record Keeping**

Pursuant to 326 IAC 11-7-8, 326 IAC 3-5, 40 CFR 60.39b, Subpart Cb, and 40 CFR 60.59, Subpart Eb, as amended by 60FR 45124 (August 25, 1997)

- (a) The Permittee subject to the standards under Sect. 60.52b, 60.53b, 60.54b, 60.55b, and 60.57b shall maintain records of the information specified in paragraphs (a)(1) through (a)(12) below, as applicable, for each affected facility for a period of at least 5 years.
  - (1) The calendar date of each record.
  - (2) The emission concentrations and parameters measured using continuous monitoring systems as specified under paragraphs (a)(2)(A) and (a)(2)(B) below.
    - (A) The measurements specified in paragraphs (a)(2)(A)(i) through (a)(2)(A)(iv) of this section shall be recorded and be available for submittal to the Administrator or review onsite by an inspector.
      - (i) All 6-minute average opacity levels as specified under Sec. 60.58b(c).
      - (ii) All 1-hour average sulfur dioxide emission concentrations as specified under Sec. 60.58b(e).
      - (iii) All 1-hour average nitrogen oxides emission concentrations as specified under Sec. 60.58b(h).
      - (iv) All 1-hour average carbon monoxide emission concentrations, municipal waste combustor unit load measurements, and



particulate matter control device inlet temperatures as specified under Sec. 60.58b(i).

- (B) The average concentrations and percent reductions, as applicable, specified in paragraphs (a)(2)(B)(i) through (a)(2)(B)(iv) of this section shall be computed and recorded, and shall be available for submittal to the Administrator or review on-site by an inspector.
  - (i) All 24-hour daily geometric average sulfur dioxide emission concentrations and all 24-hour daily geometric average percent reductions in sulfur dioxide emissions as specified under Sec. 60.58b(e).
  - (ii) All 24-hour daily arithmetic average nitrogen oxides emission concentrations as specified under Sec. 60.58b(h).
  - (iii) All 4-hour block arithmetic average carbon monoxide emission concentrations, as applicable, as specified under Sec. 60.58b(i).
  - (iv) All 4-hour block arithmetic average municipal waste combustor unit load levels and particulate matter control device inlet temperatures as specified under Sec. 60.58b(i).
- (3) Identification of the calendar dates when any of the average emission concentrations, percent reductions, or operating parameters recorded under paragraphs (a)(2)(B)(i) through (a)(2)(B)(iv) above, or the opacity levels recorded under paragraph (a)(2)(A)(i) above are above the applicable limits, with reasons for such exceedances and a description of corrective actions taken.
- (4) For affected facilities that apply activated carbon for mercury or dioxin/furan control, the records specified in paragraphs (a)(4)(A) through (a)(4)(E) below.
  - (A) The average carbon mass feed rate (in pounds per hour) estimated as required under Sec. 60.58b(m)(1)(i) is estimated as an average based on the total time period of all the test runs during the initial mercury performance test and all subsequent annual performance tests, with supporting calculations.
  - (B) The average carbon mass feed rate (in pounds per hour) estimated as required under Sec. 60.58b(m)(1)(ii) is estimated as an average based on the total time period of all the test runs during the initial dioxin/furan performance test and all subsequent annual performance tests, with supporting calculations.
  - (C) The average carbon mass feed rate (in pounds per hour) estimated for each hour of operation as required under Sec. 60.58b(m)(3)(ii), with supporting calculations.
  - (D) The total carbon usage for each calendar quarter estimated as specified by paragraph 60.58b(m)(3), with supporting calculations.
  - (E) Carbon injection system operating parameter data for the parameter(s) that are the primary indicator(s) of carbon feed rate (e.g., screw feeder speed).

The Permittee intends to utilize a gravimetric feeder or equivalent to estimate carbon mass feed rate estimated as an average based on the total time period of all the test runs during the most recent performance test for the carbon injection system.

- (5) Identification of the calendar dates for which the minimum number of hours of any of the data specified in paragraphs (a)(5)(A) through (a)(5)(E) below have not been obtained including reasons for not obtaining sufficient data and a description of corrective actions taken.
  - (A) Sulfur dioxide emissions data;
  - (B) Nitrogen oxides emissions data;
  - (C) Carbon monoxide emissions data;
  - (D) Municipal waste combustor unit load (steam flow) data; and
  - (E) Particulate matter control device temperature data.
- (6) Identification of each occurrence that sulfur dioxide emissions data, nitrogen oxides emissions data, or operational data (i.e., carbon monoxide emissions, unit load, and particulate matter control device temperature) have been excluded from the calculation of average emission concentrations or parameters, and the reasons for excluding the data.
- (7) The results of daily drift tests and quarterly accuracy determinations for sulfur dioxide, nitrogen oxides, and carbon monoxide continuous emission monitoring systems, as required under appendix F of 40 CFR Part 60, procedure 1.
- (8) The test reports documenting the results of the initial performance test and all annual performance tests listed in paragraphs (a)(8)(A) and (a)(8)(B) below shall be recorded along with supporting calculations.
  - (A) The results of the initial performance test and all annual performance tests conducted to determine compliance with the particulate matter, opacity, cadmium, lead, mercury, dioxins/furans, hydrogen chloride, and fugitive ash emission limits.
  - (B) For the initial dioxin/furan performance test and all subsequent dioxin/furan performance tests recorded under paragraph (a)(8)(A) above, the maximum demonstrated municipal waste combustor unit load and maximum demonstrated particulate matter control device temperature (for each particulate matter control device).
- (9) The records specified in paragraphs (a)(9)(A) through (a)(9)(C) below.
  - (A) Records showing the names of the municipal waste combustor chief facility operator, shift supervisors, and control room operators who have been provisionally certified by the American Society of Mechanical Engineers or an equivalent State-approved certification program as required by Sec. 60.54b(a) including the dates of initial and renewal certifications and documentation of current certification.
  - (B) Records showing the names of the municipal waste combustor chief facility operator, shift supervisors, and control room operators who have been fully certified by the American Society of Mechanical Engineers or

an equivalent State-approved certification program as required by Sec. 60.54b(b) including the dates of initial and renewal certifications and documentation of current certification.

- (C) Records showing the names of the municipal waste combustor chief facility operator, shift supervisors, and control room operators who have completed the EPA municipal waste combustor operator training course or a State-approved equivalent course as required by Sec. 60.54b(d) including documentation of training completion.
- (10) Records showing the names of persons who have completed a review of the operating manual as required by Sec. 60.54b(f) including the date of the initial review and subsequent annual reviews.
- (11) For affected facilities that apply activated carbon for mercury or dioxin/furan control, identification of the calendar dates when the average carbon mass feed rates recorded under (a)(4)(C) above were less than either of the hourly carbon feed rates estimated during performance tests for mercury or dioxin/furan emissions and recorded under paragraphs (a)(4)(A) and (a)(4)(B) above, respectively, with reasons for such feed rates and a description of corrective actions taken.
- (12) For affected facilities that apply activated carbon for mercury or dioxin/furan control, identification of the calendar dates when the carbon injection system operating parameter(s) that are the primary indicator(s) of carbon mass feed rate (e.g., screw feeder speed) recorded under paragraph (a)(4)(E) above are below the level(s) estimated during the performance tests as specified in Sec. 60.58b(m)(1)(i) and Sec. 60.58b(m)(1)(ii) of this section, with reasons for such occurrences and a description of corrective actions taken.

#### Reporting Requirements

Pursuant to 326 IAC 11-7-8, 326 IAC 3-5, 40 CFR 60.39b, Subpart Cb, and 40 CFR 60.59b, Subpart Eb, as amended by 60FR 45124 (August 25, 1997)

- (b) The Permittee shall submit the information specified in paragraphs (b)(1) through (b)(6) of this section in the initial performance test report.
  - (1) The initial performance test data as recorded under paragraphs (a)(2)(B)(i) through (a)(2)(B)(iv) above for the initial performance test for sulfur dioxide, nitrogen oxides, carbon monoxide, municipal waste combustor unit load level, and particulate matter control device inlet temperature.
  - (2) The test report documenting the initial performance test recorded under paragraph (a)(9) above for particulate matter, opacity, cadmium, lead, mercury, dioxins/furans, hydrogen chloride, and fugitive ash emissions.
  - (3) The performance evaluation of the continuous emission monitoring system using the applicable performance specifications in appendix B of this part.
  - (4) The maximum demonstrated municipal waste combustor unit load and maximum demonstrated particulate matter control device inlet temperature(s) established during the initial dioxin/furan performance test as recorded under paragraph (a)(9) above.
  - (5) For affected facilities that apply activated carbon injection for mercury control, the Permittee shall submit the average carbon mass feed rate recorded as an

average based on the total time period of all the test runs during the most recent performance under paragraph (a)(4)(A) above.

- (6) For those affected facilities that apply activated carbon injection for dioxin/furan control, the Permittee shall submit the average carbon mass feed rate recorded as a block average based on the total time period of all the test runs during the most recent performance test under paragraph (a)(4)(B) above.
- (c) Following the first year of municipal combustor operation, the Permittee shall submit an annual report including the information specified in paragraphs (c)(1) through (c)(4) below, as applicable, no later than February 1 of each year following the calendar year in which the data were collected (once the unit is subject to permitting requirements under Title V of the Act, the Permittee must submit these reports semiannually).
  - (1) A summary of data collected for all pollutants and parameters regulated under this Subpart, which includes the information specified in paragraphs (c)(1)(A) through (c)(1)(E) below.
    - (A) A list of the particulate matter, opacity, cadmium, lead, mercury, dioxins/furans, hydrogen chloride, and fugitive ash emission levels achieved during the performance tests recorded under paragraph (a)(8) above.
    - (B) A list of the highest emission level recorded for sulfur dioxide, nitrogen oxides, carbon monoxide, municipal waste combustor unit load level, and particulate matter control device inlet temperature based on the data recorded under paragraphs (a)(2)(B)(i) through (a)(2)(B)(iv) above.
    - (C) List the highest opacity level measured, based on the data recorded under paragraph (a)(2)(A)(i) above.
    - (D) The total number of days that the minimum number of hours of data for sulfur dioxide, nitrogen oxides, carbon monoxide, municipal waste combustor unit load, and particulate matter control device temperature data were not obtained based on the data recorded under paragraph (a)(6) above.
    - (E) The total number of hours that data for sulfur dioxide, nitrogen oxides, carbon monoxide, municipal waste combustor unit load, and particulate matter control device temperature were excluded from the calculation of average emission concentrations or parameters based on the data recorded under paragraph (a)(6) above.
  - (2) The summary of data reported under paragraph (c)(1) above shall also provide the types of data specified in paragraphs (c)(1)(A) through (c)(1)(E) above for the calendar year preceding the year being reported, in order to provide the Administrator and IDEM, OAQ, and Indianapolis OES, with a summary of the performance of the affected facility over a 2-year period.
  - (3) The summary of data including the information specified in paragraphs (c)(1) and (c)(2) above shall highlight any emission or parameter levels that did not achieve the emission or parameter limits specified under this Subpart.
  - (4) A notification of intent to begin the reduced dioxin/furan performance testing schedule specified in Sec. 60.58b(c)(5)(iii) of this section during the following calendar year.

- (d) The Permittee shall submit a semiannual report that includes the information specified in paragraphs (d)(1) through (d)(5) below for any recorded pollutant or parameter that does not comply with the pollutant or parameter limit specified under this Subpart, according to the schedule specified under paragraph (d)(6) below.
  - (1) The semiannual report shall include information recorded under paragraph (a)(3) above for sulfur dioxide, nitrogen oxides, carbon monoxide, municipal waste combustor unit load level, particulate matter control device inlet temperature, and opacity.
  - (2) For each date recorded as required by paragraph (a)(3) above and reported as required by paragraph (d)(1) above, the semiannual report shall include the sulfur dioxide, nitrogen oxides, carbon monoxide, municipal waste combustor unit load level, particulate matter control device inlet temperature, or opacity data, as applicable, recorded under paragraphs (a)(2)(B)(i) through (a)(2)(B)(iv) and (a)(2)(A)(i) above, as applicable.
  - (3) If the test reports recorded under paragraph (a)(9) above, document any particulate matter, opacity, cadmium, lead, mercury, dioxins/furans, hydrogen chloride, and fugitive ash emission levels that were above the applicable pollutant limits, the semiannual report shall include a copy of the test report documenting the emission levels and the corrective actions taken.
  - (4) The semiannual report shall include the information recorded under paragraph (a)(12) above for the carbon injection system operating parameter(s) that are the primary indicator(s) of carbon mass feed rate.
  - (5) For each operating date reported as required by paragraph (d)(4) above, the semiannual report shall include the carbon feed rate data recorded under paragraph (a)(4)(C) above.
  - (6) Semiannual reports required by paragraph (d) of this section shall be submitted according to the schedule specified in paragraphs (d)(6)(A) and (d)(6)(B) below.
    - (A) If the data reported in accordance with paragraphs (d)(1) through (d)(5) above were collected during the first calendar half, then the report shall be submitted by August 1 following the first calendar half.
    - (B) If the data reported in accordance with paragraphs (d)(1) through (d)(5) above were collected during the second calendar half, then the report shall be submitted by February 1 following the second calendar half.
- (e) All reports specified under paragraphs (a), (b), (c), (d), (e), and (f), (if applicable) of this section shall be submitted as a paper copy, postmarked on or before the submittal dates specified under these paragraphs, and maintained onsite as a paper copy for a period of 5 years.
- (f) All records specified under paragraphs (a) and (b) of this section shall be maintained onsite in either paper copy or computer-readable format, unless an alternative format is approved by the Administrator.
- (g) If the Permittee would prefer a different annual or semiannual date for submitting the periodic reports required by paragraphs (b), (c) and (d) above, then the dates may be changed by mutual agreement between the Permittee and the Administrator according to the procedures specified in Sec. 60.19(c) of Subpart A of 40 CFR 60.

#### D.1.18 Record Keeping Requirements - Municipal Waste

Pursuant to Significant Source Modification 097-10550-00123, issued October 13, 1999:

- (a) In order to document compliance with Condition D.1.9, the Permittee shall maintain records of the total amount of municipal waste combusted at the facility in tons per month.
- (b) In order to document compliance with Condition D.1.10, the Permittee shall record and maintain the amount of natural gas combusted during each day and calculate the annual capacity factor for each calendar quarter. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month.
- (c) In order to document compliance with Condition D.1.16, the Permittee shall record the daily charging rates and hours of operation.
- (d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

#### Additional Special Requirements

If duplicate requirements are found between the incorporated sections of the Consent Decree filed January 12, 1993 and 40 CFR 60, Subpart Cb, the Permittee shall meet the more stringent requirement between the Consent Decree and the Part 70 Operating Permit. There are additional requirements specified from a Consent Decree filed January 12, 1993, Cause number 49F12-9110-OV-2155 that are carried over into the Part 70 Permit. The conditions not carried over from the Consent Decree were either satisfied or were not required by the consent decree to be incorporated into the Part 70 permit. These special requirements of the Consent Decree that are carried over into the Part 70 Permit are not federally enforceable.

#### D.1.19 Operation and Maintenance Plan

Pursuant to the Consent Decree filed January 12, 1993, for Cause number 49F12-9110-OV-2155, Section G, Paragraphs 1 and 5:

- (a) Whenever a boiler tube failure, ash plug, broken grate bar, decrease in expected bag performance, or scrubber failure occurs, or a work practice causes any of the foregoing or is demonstrated to adversely impact the Facility's ability to meet the terms and conditions of the Permit, the Permittee shall reevaluate the applicable provisions of its O & M Plan required in D.1.19(b) to determine if any changes in such provisions, including work practices, are required, and shall report to IDEM the results of the reevaluations noted below. The Permittee shall notify IDEM, OAQ and OES, in writing within thirty (30) days prior to implementing revisions to the O & M Plan.
- (b) The Permittee shall combine all current operation and preventative maintenance plans, including the Baghouse/Scrubber Preventive Maintenance Plan, Boiler Operation and Maintenance Plan and the Maintenance Management System, into one plan to be described as the Operation and Maintenance Plan (O & M Plan), containing sections on (1) Maintenance Management System, (2) Auxiliary Burner, (3) Martin Stoker/Ash Discharger, (4) Waste Feed, (5) Boiler, and (6) Baghouse/Scrubber. Each section shall describe the applicable work practices to assure the proper operation of the applicable equipment and systems which may impact air emissions from the Facility and shall describe or reference related work orders for such equipment and systems included in the Prefix or equivalent system described in the Maintenance Management System section of the O & M Plan. The permittee has satisfied this condition.

#### D.1.20 Sulfur Dioxide

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Pursuant to Consent Decree filed January 12, 1993, Cause number 49F12-9110-OV-2155, Section D, Paragraph 1, the Permittee shall keep the acid gas scrubber for each unit in service whenever municipal solid waste is on the grate for that unit.

#### D.1.21 Substantive Provisions

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- (a) **Baghouse**  
Pursuant to Consent Decree Section B, Paragraph 2, Cause number 49F12-9110-OV-2155, the Permittee shall not bypass the baghouse for a Unit while municipal solid waste is on the grate unless necessary to avoid an explosive or other dangerous situation which could result in structural or major damage to any equipment of the Facility impairing the use of such equipment, or injury to personnel working at or near the Facility. Structural or major damage to any equipment of the Facility does not include damage to or destruction of bags. The Permittee shall bear the burden of demonstrating the need for the bypass. Within ten (10) days of a bypass incident, the Permittee shall submit a written report to the OES and IDEM detailing the length of the bypass incident, the operating parameters at the time of the bypass, including but not limited to flue gas inlet temperature to the baghouse and differential pressure across the baghouse, and the conditions or reasons necessitating the bypass.
- (b) **Good Combustion Practices**  
Pursuant to Consent Decree Section B, Para. 3 Cause number 49F12-9110-OV-2155, Because the furnace boiler tube thinning may be attributable to fireside corrosion stemming from acid gases and corrosive salts, providing a catalyst for boiler tube failure. Covanta Indianapolis, Inc. shall, within thirty (30) days after the effective date of this Consent Decree, conduct a review of the boiler operation to determine the optimum operation to reduce boiler tube thinning and to establish procedure to ensure that the optimum boiler operation can be consistently maintained. The following will be addressed in such review:
  - (1) **Training.** Operating personnel have increased the number of furnace observations made at regularly scheduled intervals, as part of their normal "walk-downs". In addition, an operator/shift supervisor training program, geared toward optimum combustion control and stoker operation, will continue to be implemented.

#### D.1.22 Record Keeping and Reporting Requirements for Consent Decree

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Pursuant to Consent Decree filed January 12, 1993, Cause number 49F12-9110-OV-2155, Section F paragraphs 1 through 5 and paragraph 9:

- (a) The Permittee shall submit the following information to both IDEM and the OES in a monthly report:
  - (1) All permit exceedances
  - (2) Unit downtime as defined by 40 CFR 60, Subpart Cb
  - (3) CEMs downtime as defined by 40 CFR 60, Subpart Cb
  - (4) Highest outlet SO<sub>2</sub> concentration
  - (5) Highest outlet CO concentration
  - (6) Average feedwater flow rate, per unit (klb/day)
  - (7) Total export steam output (klb/day)

- (8) Material charged, per unit (ton/day)
- (b) In addition to the monthly report, for each instance of an exceedance of an emission limit in the Permits, the Permittee shall submit to IDEM and the OES, the following:
  - (1) Monitoring data (raw, corrected and averaged values) for that pollutant and all other monitored pollutants and for flue gas temperature at the baghouse inlet, the time the use of natural gas in a Unit commenced and ended, steam flow, and oxygen extending before and after the exceedance for a period equal to the hours of averaging time for the particular pollutant; and
  - (2) Documentation indicating the hours when garbage was on the grate during the period of the exceedance, the causes of all emissions which occurred during the exceedance and the causes of all emissions which occurred during the exceedance and the actions taken to correct said excess emissions. Upon request, the Permittee shall submit to IDEM or the OES, as soon as practicable, any other data or information which is relevant to the exceedance.
- (c) The Permittee shall submit a quarterly summary of SO<sub>2</sub> (lb/day) and CO (lb/day).
- (d) The Permittee also shall submit Quarterly Quality Assurance Reports in accordance with 40 CFR 60, Part F, Section 5 and with the following instructions:
  - (1) Opacity
    - (A) Results of the quarter QA checks
      - (i) optical alignment
      - (ii) manual calibration and zero checks
    - (B) Results for all performance tests, audits, and recalibrations performed during the quarter.
    - (C) Reference to, and where applicable for data validity purposes, control charts of zero and span drift.
    - (D) Reference to, and where applicable for data validity purposes, a listing of repairs, adjustments, or maintenance of monitors.
    - (E) The cause and time period for bad data and for suspect data averages. (Format as in Part III)
    - (F) The percent valid data return (VDR)
  - (2) Gaseous - the data assessment report (DAR) must contain the following information:
    - (A) Identification and location of monitors.
    - (B) Manufacturer and model number of each monitor
    - (C) Assessment of continuous monitors data accuracy and data of assessment as determined by a RATA, RAA or CGA described in Section 5 of 40 CFR 60 Appendix F including the RA for the RATA, the A for the RAA or CGA, the RM results, the cylinder gases certified



values, the CEMS responses accuracy, and calculations results as defined in Section 6 of 40 CFR 60 Appendix F.

- (e) The Permittee shall report to IDEM malfunctions of any facility or emission control equipment in accordance with 326 IAC 1-6-2 and malfunctions of any monitoring system in accordance with 326 IAC 3-5. Claims that exceedances due to malfunctions are not violations shall be made pursuant to 326 IAC 1-6-4, shall be made in writing and shall be meet the definition under 326 IAC 1-2-39. The Permittee also shall report all malfunctions to the OES in accordance with the applicable regulations adopted by the OES and in effect at the time.

Compliance with Section B - Emergency Provisions will satisfy the requirement of Condition D.1.22(e).

- (f) All data derived from the continuous emissions monitors and temperature monitors (other than the data submitted pursuant to paragraph 9 below) which The Permittee submits in a written report format to IDEM and the OES shall be quality assured pursuant to the approved quality assurance/quality control plan referenced in paragraph 8 below and attested as to its accuracy by the Facility and/or General Manager or Chief Engineer. All additional data which the Permittee submits in a written report format to IDEM and the OES shall be attested as to its accuracy by the Facility and/or General Manager or Chief Engineer.

Pursuant to Section B - Certification and the Part 70 permit program, certification requirements for each submission are identified in the permit. General certification requirements are contained in Section B - Certification.

- (g) The Permittee shall submit the monthly report required by paragraph (a) above within fifteen (15) days from the last day of the reporting period provided however that if the report is due on a weekend or holiday, it shall be due on the following business day.
- (h) The Permittee shall designate in writing to IDEM and the OES the name of an employee at the Facility and a back up employee, at the Facility to act in the absence of the designated employee, to serve as a person who will provide IDEM with all requested information and data. The Permittee may designate a new or different employee at any time by providing written notice thereof to IDEM and the OES.
- (i) The Permittee shall transfer daily to IDEM and the OES via modems and compatible computer hardware owned, operated and maintained by IDEM and OES respectively, the Facility's continuously monitored raw data for the prior calendar day for all regulated pollutants, temperature, steam flow, carbon dioxide and oxygen. The Permittee shall obtain authorization from its software licensor to allow IDEM and OES to use the software necessary for IDEM and OES to collect and analyze the data and produce reports in the same format as the reports generated by the Permittee and submitted to IDEM and OES. The Permittee further agrees it will provide one day of training for the employees of IDEM and OES with respect to such software.

or

The Permittee alternatively shall give complete electronic access to IDEM and OES via computer connection at any time. The connection shall give IDEM and OES access to all monitoring data. This alternative requirement satisfies Condition D.1.22(i).

## SECTION D.2

## FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]

- (b) Lime Silo equipped with a vent fabric filter for particulate control.

The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.

### Emission Limitations and Standards [326 IAC 2-7-5(1)]

#### D.2.1 Particulate Matter [326 IAC 6-1-2]

Pursuant to 326 IAC 6-1-2, the PM emissions from the lime silo shall not exceed 0.03 grains per dry standard cubic foot;

#### D.2.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and their control devices.

### Compliance Determination Requirement

#### D.2.3 Particulate Matter (PM) Emissions

The lime storage silo fabric filter system shall operate at all times during the transfer of lime to the storage silo and during the removal of lime from the storage silo to an alternate storage area. The transfer equipment from the storage silo shall be enclosed to control particulate matter emissions.

### Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

#### D.2.4 Visible Emissions Notations

- (a) Visible emission notations of the transfer points exhaust shall be performed during normal daylight operations during the transfer of lime to the storage silo and during the removal of lime from the storage silo to an alternate storage area. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports shall be considered a violation of this permit.

#### D.2.5 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouse during the transfer of lime to the storage silo and during the removal of lime from the storage silo to an alternate

storage area. When for any one reading, the pressure drop across the baghouse is outside the normal range of 3.0 and 7.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM and shall be calibrated at least once every six (6) months.

#### **D.2.6 Baghouse Inspections**

---

An inspection shall be performed within the last month of each calendar quarter of all bags controlling the lime silo. All defective bags shall be replaced.

#### **D.2.7 Broken or Failed Bag Detection**

---

In the event that bag failure has been observed:

- (a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.
- (b) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

### **Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

#### **D.2.8 Record Keeping Requirements**

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- (a) To document compliance with Condition D.2.4, the Permittee shall maintain records of the visible emission notations of the transfer points exhaust during the transfer of lime to the storage silo and during the removal of lime from the storage silo to an alternate storage area.
- (b) To document compliance with Condition D.2.5, the Permittee shall maintain records of the differential static pressure during normal operation of the lime silo baghouse.
- (c) To document compliance with Condition D.2.6 the Permittee shall maintain records of the results of the inspections required under Condition D.2.6.
- (d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

## SECTION D.3

## FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]

- (c) One (1) dry activated carbon storage silo equipped with an integrated baghouse system with a maximum storage capacity of 3,000 cubic feet.

The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.

### Emission Limitations and Standards [326 IAC 2-7-5(1)]

#### D.3.1 Particulate Matter (PM) [326 IAC 6-1-2]

Pursuant to 326 IAC 6-1-2, the PM emissions from the dry activated carbon storage silo shall not exceed 0.03 grains per dry standard cubic foot.

#### D.3.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and their control devices.

### Compliance Determination Requirement

#### D.3.3 Particulate Matter (PM) Emissions

The dry activated carbon storage silo baghouse system shall operate at all times during the transfer of activated carbon to the storage silo and during the removal of activated carbon from the storage silo to an alternate storage area. The transfer equipment from the storage silo shall be enclosed to control particulate matter emissions.

### Compliance Monitoring Requirements [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]

#### D.3.4 Visible Emissions Notations

- (a) Once per shift visible emission notations of the transfer points exhaust shall be performed during normal daylight operations during the transfer of activated carbon to the storage silo and during the removal of activated carbon from the storage silo to an alternate storage area. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

#### D.3.5 Parametric Monitoring

---

The Permittee shall record the total static pressure drop across the baghouse used in conjunction with the dry activated carbon storage silo, at least once while filling the silo. When for any one reading, the pressure drop across the baghouse is outside the normal range of 0.5 and 4.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM and shall be calibrated at least once every six (6) months.

#### D.3.6 Baghouse Inspections

---

An inspection shall be performed within the last month of each calendar quarter of all bags controlling the dry activated carbon storage silo. All defective bags shall be replaced.

#### D.3.7 Broken or Failed Bag Detection

---

In the event that bag failure has been observed:

- (a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.
- (b) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

### **Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)][326 IAC 2-7-19]**

#### D.3.8 Record Keeping Requirements

---

- (a) To document compliance with Condition D.3.4, the Permittee shall maintain records of once per shift visible emission notations of the transfer points exhaust during the transfer to activated carbon to the storage silo and during the removal of carbon from the storage silo to an alternate storage area.
- (b) To document compliance with Condition D.3.5, the Permittee shall maintain records of the differential static pressure when filling the silo.
- (c) To document compliance with Condition D.3.6 the Permittee shall maintain records of the results of the inspections required under Condition D.3.6.

- (d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

## SECTION D.4

## FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]

#### Insignificant Activities:

- (a) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment.

The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.

### Emission Limitations and Standards [326 IAC 2-7-5(1)]

#### D.4.1 Particulate Matter (PM) [326 IAC 6-1-2]

Pursuant to 326 IAC 6-1-2, the PM emissions from each of the manufacturing activities shall not exceed 0.03 grains per dry standard cubic foot.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT**  
**OFFICE OF AIR QUALITY**  
**Compliance Branch**

**PART 70 OPERATING PERMIT**  
**CERTIFICATION**

**Source Name:** Covanta Indianapolis, Inc.  
**Source Address:** 2320 South Harding Street, Indianapolis, Indiana 46221  
**Mailing Address:** 2320 South Harding Street, Indianapolis, Indiana 46221  
**Part 70 Permit No.:** 097-5985-00123

**This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.**

Please check what document is being certified:

- 9 Annual Compliance Certification Letter
- 9 Test Result (specify) \_\_\_\_\_
- 9 Report (specify) \_\_\_\_\_
- 9 Notification (specify) \_\_\_\_\_
- 9 Affidavit (specify) \_\_\_\_\_
- 9 Other (specify) \_\_\_\_\_

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Phone:

Date:



**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE BRANCH  
100 North Senate Avenue  
P.O. Box 6015  
Indianapolis, Indiana 46206-6015  
Phone: 317-233-5674  
Fax: 317-233-5967**

**PART 70 OPERATING PERMIT  
EMERGENCY OCCURRENCE REPORT**

**Source Name:** Covanta Indianapolis, Inc.  
**Source Address:** 2320 South Harding Street, Indianapolis, Indiana 46221  
**Mailing Address:** 2320 South Harding Street, Indianapolis, Indiana 46221  
**Part 70 Permit No.:** 097-5985-00123

**This form consists of 2 pages**

**Page 1 of 2**

- |  |
|--|
| <p>9 This is an emergency as defined in 326 IAC 2-7-1(12)</p> <ul style="list-style-type: none"><li>• The Permittee must notify the Office of Air Quality (OAQ), within four (4) business hours (1-800-451-6027 or 317-233-5674, ask for Compliance Section); and</li><li>• The Permittee must submit notice in writing or by facsimile within two (2) working days (Facsimile Number: 317-233-5967), and follow the other requirements of 326 IAC 2-7-16.</li></ul> |
|--|

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:
Control Equipment:
Permit Condition or Operation Limitation in Permit:
Description of the Emergency:
Describe the cause of the Emergency:

If any of the following are not applicable, mark N/A

**Page 2 of 2**

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency?    Y    N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO <sub>2</sub> , VOC, NO <sub>x</sub> , CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by: \_\_\_\_\_

Title / Position: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

A certification is not required for this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
Compliance Branch**

**PART 70 OPERATING PERMIT  
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

**Source Name:** Covanta Indianapolis, Inc.  
**Source Address:** 2320 South Harding Street, Indianapolis, Indiana 46221  
**Mailing Address:** 2320 South Harding Street, Indianapolis, Indiana 46221  
**Part 70 Permit No.:** 097-5985-00123

**Months:** \_\_\_\_\_ **to** \_\_\_\_\_ **Year:** \_\_\_\_\_

Page 1 of 2

This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. Deviations that are required to be reported by an applicable requirement shall be reported according to the schedule stated in the applicable requirement and do not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".

9 NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.

9 THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD

**Permit Requirement** (specify permit condition #)

**Date of Deviation:**

**Duration of Deviation:**

**Number of Deviations:**

**Probable Cause of Deviation:**

**Response Steps Taken:**

**Permit Requirement** (specify permit condition #)

**Date of Deviation:**

**Duration of Deviation:**

**Number of Deviations:**

**Probable Cause of Deviation:**

**Response Steps Taken:**

<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	

<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	

<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	

Form Completed By: \_\_\_\_\_

Title/Position: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

# Indiana Department of Environmental Management Office of Air Quality

## Addendum to the Technical Support Document (TSD) for a Part 70 Operating Permit

### Source Background and Description

Source Name:	Covanta Indianapolis, Inc.
Source Location:	2320 South Harding Street, Indianapolis, Indiana 46221
County:	Marion County
SIC Code:	4953
Operation Permit No.:	T097-5985-00123
Permit Reviewer:	ERG/EG

On February 7, 2002, the Office of Air Quality (OAQ) had a notice published in the Indianapolis Star & News, Indianapolis, Indiana, stating that Covanta Indianapolis, Inc. had applied for an operating permit to operate a municipal solid waste combustion facility. The notice also stated that OAQ proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of forty-five (45) days to provide comments on whether or not this permit should be issued as proposed.

On February 19, 2002, the Office of Air Quality held a public meeting for interested parties to comment and ask questions about the proposed permit.

On March 20, 2002, Covanta Indianapolis, Inc. submitted comments on the proposed Part 70 Operating Permit. The following is a summary of the comments.

### Comment 1:

Section A, Condition A.2 (a)(2). Page 6 of 65.

Please note that the five (5) screw conveyors convey flyash from “three” scrubber-baghouse units and not “one: as implied through the existing use of the singular “scrubber-baghouse” term.

### Response to Comment 1:

IDEM has revised Condition A.2(a)(2) as requested by the Permittee.

A.2      Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)]  
[326 IAC 2-7-5(15)]

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- (2)      A Fugitive Ash Emission Control System - one (1) dustmaster fly ash conditioning system comprised of five (5) screw conveyors that convey fly ash from the **three (3)** scrubber-baghouse **units** to the ash storage silo; one (1) ash storage silo that batch feeds the fly ash into the dustmaster conditioning system; and one (1) dustmaster fly ash conditioning system that mixes water and fly ash to produce a consistent moisture content that reduces fugitive dust.

## Comment 2:

Section B, Condition B.15(b). Page 13 of 65.

We cannot evaluate the content of this condition because the draft permit is not complete. The current condition ends with the statement; "It does not include:" but there are no provisions to complete this statement.

## Response to Comment 2:

The end of Condition B.15(b) was supposed to stop after "permit". The remainder of the sentence was deleted as a result of changes to the standard Title V permit language.

### B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]

- (b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit. ~~or a rule. It does not include:~~

## Comment 3:

Section C, Condition C.11(1), (2), (3) and (4). Page 21 of 65.

The Permittee has two general comments regarding this condition with both comments justifying the removal of the requirement to "install a backup analyzer" within a certain period of time. The first comment concerns the fact that the proposed condition is less stringent than the federal provisions that are cited as draft permit condition D.1.12(i)(9) and the second comment addresses the fact that the existing CEM system cannot accommodate redundant analyzers.

Federal Requirements. Each of the cited conditions includes a time requirement for installing a backup analyzer with the condition being less stringent than the federal requirement. The provisions of 40 CFR 60.58b(i)(10) require that, as a minimum, a continuous emission monitoring system shall provide valid hourly data for 75 % of the operating hours per day for 90 % of the operating days per calendar quarter. If the Facility waits ten (10) hours to replace an analyzer that is not providing valid data, the 75 % standard would be exceeded and installation of a backup analyzer would not be a remedy for this situation. Please note that the draft condition contradicts the requirements of Draft Condition D.1.12(i)(9) that incorporates the performance standards of 40 CFR 60.58b(i)(10).

Hardware Issues. There are two technical issues that prevent the practical implementation of a backup analyzer; 1) the existing system does not have room for an installed backup analyzer, and 2) the Permittee does not own backup analyzers with the cost of having spare analyzers being excessive given that the analyzer could not be part of a certified system.

The certification procedures for a CEM system certify the entire system from the sample probe to the analyzer. Having a backup analyzer on site would not automatically provide for the generation of certified valid data for determining compliance and the existing CEM rack cannot be expanded for spare analyzers. As a result, the Permittee cannot have a spare analyzer in place to be certified and any data from a non-certified on-site spare would provide data without any regulatory value. As a result, the Permittee would incur tremendous costs to have spares on site without there being any useful value to be derived from the spare unit.

Conclusion. The Permittee is proposing that the requirements to install an spare analyzer should be removed from each of the conditions and that the condition should refer to Condition D.1.12(i)(9). The existing CEM system can not accommodate on-site spares and any other spare would provide meaningless data. The designated replacement time periods are not consistent with federal requirements but even if they were adjusted, the facility still could not accommodate a spare analyzer.

### Response to Comment 3:

IDEM agrees with some portion of the comment, however the facility will have backup requirements in the event a monitor does fail. The Permittee will be required to record the slurry feed rate four times an hour as a backup for sulfur dioxide monitoring and record the ammonia feed rate four times an hour as a backup for nitrogen oxide monitoring. As a backup for carbon monoxide monitor failure, the Permittee will be required to record the steam load rate and percent oxygen four times an hour, and will be required to monitor the four-hour average rooftop thermocouple temperature. In addition, changes were made to clarify the language in Condition C.10(a). The changes to Condition C.10 are as follows:

#### C.4410 Maintenance of **Continuous** Emission Monitoring Equipment [326 IAC 2-7-5(3)(A)(iii)]

- (a) ~~In the event that a breakdown of the emission monitoring equipment occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem. To the extent practicable, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less frequent than required in Section D of this permit until such time as the monitoring equipment is back in operation. In the case of continuous monitoring, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less often than one (1) hour until such time as the continuous monitor is back in operation. The Permittee shall install, calibrate, maintain, and operate all necessary continuous emission monitoring systems (CEMS) and related equipment. In addition, prompt corrective action shall be initiated whenever indicated. In the event that a breakdown of a continuous emission monitoring system occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem. Whenever a continuous emission monitor other than an opacity monitor is malfunctioning or will be down for calibration, maintenance, or repairs for a period of four (4) hours or more, supplemental or intermittent monitoring of the parameter shall be implemented as specified below until such time as the emission monitor system is back in operation.~~
- (1) In the event of a sulfur dioxide outlet monitor failure at the stack, the Permittee shall maintain slurry feed at the rate at which it was being fed prior to the monitor malfunction **and will record the slurry feed rate four (4) times an hour. If the Permittee is unable to repair the monitoring equipment, a backup analyzer shall be installed within ten (10) hours of the time of the initial monitor failure.**
- (2) In the event of nitrogen oxide monitor failure, the Permittee shall maintain ammonia feed at the rate at which it was being fed prior to the monitor malfunction **and will record the ammonia feed rate four (4) times an hour. If the Permittee is unable to repair the monitoring equipment, a backup analyzer shall be installed within ten (10) hours of the time of the initial monitor failure.**
- (3) In the event of carbon monoxide monitor failure, the Permittee shall ~~utilize~~ **monitor the oxygen percent four (4) times an hour and maintain the oxygen percent range from 5 to 11 percent. In addition, the four (4) hour average of the municipal waste combustor rooftop thermocouple temperatures must remain greater than or equal to 1155°F, except during combustor startup, shutdown or malfunction. oxygen monitoring data to maintain proper combustion. If the Permittee is unable to repair the monitoring equipment, a backup analyzer shall be installed within seven (7) days of the time of the initial monitor failure.**

- (4) In the event of an oxygen monitor failure, **the second oxygen monitor located at the stack outlet will be used as the a-backup analyzer immediately. shall be installed within ten (10) hours of the initial monitor failure.**
- (b) ~~The Permittee shall install, calibrate, quality assure, maintain, and operate all necessary monitors and related equipment. In addition, prompt corrective action shall be initiated whenever indicated.~~ **Nothing in this condition, or in Section D of this permit, shall excuse the Permittee from complying with the requirements to operate a continuous emission monitoring system pursuant to 326 IAC 3-5, and 40 CFR 60 Subpart A, Cb, and Eb.**

**Comment 4:**

Section D, Condition D.1.12(c)(3). Page 33 of 65.

The Permittee proposes that the second and third sentence of the condition should be removed from the condition because this test requirement is already stipulated by specifying EPA Reference Method 5 in the first sentence.

While the information is redundant and does not create a complication today, if the EPA were to ever make a change to EPA Reference Method 5, these terms could become a contradiction that would require a permit modification.

The proposed change would provide both the Permittee and the Department with the ability to maintain compliance with all State and Federal requirements while possibly avoiding an unnecessary permit modification sometime in the future.

**Response to Comment 4:**

The language from Condition D.1.12(c)(3) is directly from 40 CFR 60.33b and therefore will not change as a result of the comment.

**Comment 5:**

Section D, Condition D.1.12(c)(4). Page 34 of 65

The draft Part 70 Permit does not contain the condition (b)(6) referenced within Condition D.1.12(c)(4). As a result, the Permittee cannot directly comment on the content of the condition.

If condition (b)(6) is the same as 40 CFR 60.58b(b)(6), which is provided below for your convenience, the condition is acceptable to the Permittee.

- (6) If carbon dioxide is selected for use diluent corrections, the relationship between oxygen and carbon dioxide levels shall be established during the initial [performance test according to procedures and methods specified in paragraphs (b)(6)(i) through (b)(6)(iv) of this section. This relationship may be reestablished during performance compliance tests.

The Permittee would like to point out that it will not be using the CO<sub>2</sub> to O<sub>2</sub> relationship described in 40 CFR 60.58b(b)(6), therefore the entire reference is not necessary in the final permit.

**Response to Comment 5:**

The Permittee is correct. The condition is referring to 40 CFR 60.58b(b)(6). The rule citation will be added to Condition D.1.12(c)(4).



- (c) **Particulate Matter and Opacity**  
The procedures and test methods specified in paragraphs (c)(1) through (c)(10) below shall be used to determine compliance with the emission limits for particulate matter and opacity under 40 CFR 60.33b(a)(1) and (a)(2).
- (4) The Permittee may request that compliance with the particulate matter emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility shall be established as specified in paragraph (b)(6) of **40 CFR 60.58b** ~~this section~~.

**Comment 6 and 7:**

Comment 6: Section D. Condition D.1.12(c)(6). Page 34 of 65.

The condition refers to a Condition (c)(10) however the draft permit does not have such a condition. The Permittee requests that it has an opportunity to review and comment on the content of (c)(10) or any other new condition before it is included in the Final Title V permit.

Comment 7: Section D. Condition D.1.12(c)(7). Page 34 of 65.

The first sentence includes two references to (c)(8)(A). It appears from the context of the condition that both of these references should be to (c)(7)(A).

**Response to Comment 6 and 7:**

Condition D.1.12 (c) should have contained ten sections, the omitted condition (c)(7) will be re-inserted. This revision will solve the numbering problem for this section.

D.1.12 Compliance and Performance Testing [326 IAC 11-7-7] [40 CFR 60, Subpart Cb]

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- (7) The Permittee shall conduct an initial performance test for particulate matter emissions and opacity as required under 40 CFR 60.8 of Subpart A. (The Permittee has satisfied this condition.) An initial performance test for PM and opacity was conducted on April 17-24, 1992.**
- (78)** The Permittee shall install, calibrate, maintain, and operate a continuous opacity monitoring system for measuring opacity and shall follow the methods and procedures specified in paragraphs (c)(8)(A) through (c)(8)(C) below.
  - (A) The output of the continuous opacity monitoring system shall be recorded on a 6-minute average basis.
  - (B) The continuous opacity monitoring system shall be installed, evaluated, and operated in accordance with 40 CFR 60.13 of Subpart A.
  - (C) The continuous opacity monitoring system shall conform to Performance Specification 1 in Appendix B of this part.
- (89)** Following the date that the initial performance test for particulate matter is completed or is required to be completed under 40 CFR 60.8 of Subpart A of this part for a combustor, the Permittee shall conduct a performance test for particulate matter on an annual basis (no more than 12 calendar months following the previous performance test).
- (910)** Following the date that the initial performance test for opacity is completed or is required to be completed under 40 CFR 60.8 of Subpart A for a combustor, the Permittee shall conduct a performance test for opacity on an annual basis (no

more than 12 calendar months following the previous performance test) using the test method specified in paragraph (c)(6) of this section.

**Comment 8:**

Section D. Condition D.1.12(d)(1)(E). Page 35 of 65.

The draft Part 70 Permit does not contain the condition (b)(6) referenced within Condition D.1.12(c)(4). As a result, the Permittee cannot directly comment on the content of the condition.

If condition (b)(6) is the same as 40 CFR 60.58b(b)(6), which is provided below for your convenience, the condition is acceptable to the Permittee.

- (6) If carbon dioxide is selected for use diluent corrections, the relationship between oxygen and carbon dioxide levels shall be established during the initial [performance test according to procedures and methods specified in paragraphs (b)(6)(i) through (b)(6)(iv) of this section. This relationship may be reestablished during performance compliance tests.

The Permittee would like to point out that it will not be using the CO<sub>2</sub> to O<sub>2</sub> relationship described in 40 CFR 60.58b(b)(6), therefore the entire reference is not necessary in the final permit.

**Response to Comment 8:**

The Permittee is correct. The condition is referring to 40 CFR 60.58b(b)(6). The rule citation will be added to Condition D.1.12(d)(1)(E).

D.1.12 Compliance and Performance Testing [326 IAC 11-7-7] [40 CFR 60, Subpart Cb]

- (d) Cadmium, Lead, and Mercury  
The procedures and test methods specified in paragraphs (d)(1) and (d)(2) below shall be used to determine compliance with the emission limits for cadmium, lead, and mercury under 40 CFR 60.33b(a)(2) and (a)(3).
- (1) The procedures and test methods specified in paragraphs (d)(1)(A) through (d)(1)(G) below shall be used to determine compliance with the emission limits for cadmium and lead under 40 CFR 60.33b(a)(2).
- (E) The Permittee may request that compliance with the cadmium or lead emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility shall be established as specified in paragraph (b)(6) of **40 CFR 60.58b**~~this section~~.

**Comment 9:**

Section D. Condition D.1.12(d)(2)(C). Page 35 of 65.

The Permittee proposes that the second sentence of the condition should be removed from the condition because this test requirement is already stipulated by specifying EPA Reference Method 29 in the first sentence.

While the information is redundant and does not create a complication today, if the EPA were to ever make a change to EPA Reference Method 29, these terms could become a contradiction that would require a permit modification.

The proposed change would provide both the Permittee and the Department with the ability to maintain compliance with all State and Federal requirements while possibly avoiding an unnecessary permit modification sometime in the future.

**Response to Comment 9:**

The language from Condition D.1.12(d)(2)(C) is directly from 40 CFR 60.33b and therefore will not change as a result of the comment.

**Comment 10:**

Section D. Condition D.1.12(k)(1)(A) and (B). Page 45 of 65.

The Permittee proposes that the current term of "An average carbon mass feed rate in pounds per hour" should be revised to read as "An *8-hour* average carbon mass feed rate in pounds per hour".

The proposed addition of the "*8-hour*" term is to make the condition consistent with the USEPA's position as described in their August 20, 1998 Public Comments and Responses – Municipal Waste Combustion: Background Information Document for Federal Plan. Please refer to Section III for the EPA information.

The EPA determined that interruptions in operation of the carbon injection system are not automatically violations because the carbon injection feed rate established during the performance test is not an instantaneous average. The baseline carbon feed rate is the average feedrate during the mercury (or dioxin) performance test.

**Response to Comment 10:**

The U.S. EPA's position the Permittee is referring to in the August 20, 1998 Public Comment and Responses - Municipal Waste Combustion: Background Information Document for Federal Plan is an example facility whose initial performance test lasted 8 hours. The rule does not say all facilities should use an 8-hour block average. The average should be based on the Permittee's average carbon mass feed rate from their most recent performance test. According to a conversation with Walt Stevenson, the technical contact from U.S. EPA's Office of Air Quality Planning and Standards, Emission Standards Division, the average is calculated from all the runs of the performance test and the total amount of time of those runs divided by the number of test runs to get the average carbon mass feed rate. This rate may change as a result of the next performance test. Condition D.1.12(k)(1)(A) and (B) will be changed to clarify this requirement:

**D.1.12 Compliance and Performance Testing [326 IAC 11-7-7] [40 CFR 60, Subpart Cb]**

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Pursuant to Significant Source Modification 097-10550-00123, issued October 13, 1999, 326 IAC 11-7-7, 326 IAC 3-5, 326 IAC 3-6, 40 CFR 60.38b, Subpart Cb, and 40 CFR 60.58b, Subpart Eb as amended by 60FR 45124 (August 25, 1997) unless otherwise specified shall meet the following requirements:

- (k) Carbon Injection  
The Permittee shall follow the procedures specified in paragraphs (k)(1) through (k)(3) below where activated carbon injection is used to comply with the mercury emission limit under 40 CFR 60.33b(a), or the dioxin/furan emission limits under 40 CFR 60.33b(c), or the dioxin/furan emission level specified in 40 CFR 60.38b(b).
  - (1) During the performance tests for dioxins/furans and mercury, as applicable, the Permittee shall estimate an average carbon mass feed rate based on carbon injection system operating parameters such as the screw feeder speed, hopper volume, hopper refill frequency, or other parameters appropriate to the feed system being employed, as specified in paragraphs (k)(1)(A) and (k)(1)(B) below.

- (A) An average carbon mass feed rate in pounds per hour shall be estimated **on the average time period of all the test runs during the most recent** ~~during the initial~~ performance test for mercury emissions and each subsequent performance test for mercury emissions.
- (B) An average carbon mass feed rate in pounds per hour shall be estimated **on the average time period of all the test runs during the most recent** ~~during the initial~~ performance test for dioxin/furan emissions and each subsequent performance test for dioxin/furan emissions.

**Comment 11:**

Section D. Condition D.1.12(k)(3)(B). Page 45 of 65.

The Permittee proposes that the first sentence should be modified as shown below with new language identified as *italics*.

The Permittee intends to utilize a gravimetric feeder *or equivalent* to estimate carbon mass feed rate *as an 8-hour block average* for the carbon injection system to comply with the mercury emission limit under 40 CFR 60.33b(a), or the dioxin/furan emission limits under 40 CFR 60.33b(c), or the dioxin/furan emission level specified in 40 CFR 60.38B(b).

The rationale for the “*or equivalent*” language is to provide the facility with the flexibility to use an alternative device if one is made available. The rationale for the *8-hour block average* language was provided in Comment No. 10 above.

**Response to Comment 11:**

IDEM agrees with the Permittee’s first revision to Condition D.1.12(k)(3)(B) requesting to add “or equivalent” after gravimetric feeder to provide the facility with the flexibility to use an alternative device. Please refer to response number 10 for the Permittee’s second request of “8-hour block average” for Condition D.1.12(k)(3)(B). IDEM will revise this condition to explain the average should be based on the average time period of all the test runs of the most recent performance test.

D.1.12 Compliance and Performance Testing [326 IAC 11-7-7] [40 CFR 60, Subpart Cb]

- (k) Carbon Injection  
The Permittee shall follow the procedures specified in paragraphs (k)(1) through (k)(3) below where activated carbon injection is used to comply with the mercury emission limit under 40 CFR 60.33b(a), or the dioxin/furan emission limits under 40 CFR 60.33b(c), or the dioxin/furan emission level specified in 40 CFR 60.38b(b).
  - (3) The Permittee shall estimate the total carbon usage of the plant (kilograms or pounds) for each calendar quarter by two independent methods, according to the procedures in paragraphs (k)(3)(A) and (k)(3)(B) below.
    - (B) Estimate the average carbon mass feed rate in pounds per hour for each hour of operation for each affected facility based on the parameters specified under paragraph (k)(1) above, and sum the results for all affected facilities at the plant for the total number of hours of operation during the calendar quarter.

The Permittee intends to utilize a gravimetric feeder **or equivalent** to estimate carbon mass feed rate **as an average based on the average time period of all the test runs during the most recent performance test** for the carbon injection system to comply with the mercury emission limit under 40 CFR 60.33b(a), or the dioxin/furan emission

limits under 40 CFR 60.33b(c), or the dioxin/furan emission level specified in 40 CFR 60.38b(b).

**Comment 12:**

Section D. Condition D.1.13(a). Page 45 of 65.

The words "The Permittee shall operate" should be removed from the sentence.

**Response to Comment 12:**

IDEM agrees with the Permittee and will make the suggested change.

**D.1.13 Operation of Equipment [326 IAC 2-7-6(6)]**

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- (a) ~~The Permittee shall operate~~ The selective noncatalytic reduction (SNCR) system for NOx control shall be in operation and control emissions from the municipal waste combustors at all times when the facility is in operation.

**Comment 13:**

Section D. Condition D.1.16. Page 46 of 65.

The citation for Subpart E should be 40 CFR 60.50 instead of 40 CFR 60.53.

**Response to Comment 13:**

The Permittee is correct the reference should be 40 CFR 60.50.

**D.1.16 Monitoring of Operations**

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Pursuant to 40 CFR 60.50~~53~~, Subpart E, the Permittee shall record the daily charging rates and hours of operation.

**Comment 14:**

Section D. Condition D.1.17(a)(4)(A) and (B)

The Permittee proposes that the current term of "in pounds per hour" should be revised to read as "in pounds per hour as an *8-hour block average*".

The proposed addition of the "*8-hour block average*" term is to make the condition consistent with the USEPA's position as described in their August 20, 1998 Public Comments and Responses – Municipal Waste Combustion: Background Information Document for Federal Plan. Please refer to Appendix A for the EPA information.

The EPA determined that interruptions in operation of the carbon injection system are not automatically violations because the carbon injection feed rate established during the performance test is not an instantaneous average. The baseline carbon feed rate is the average feed rate during the mercury (or dioxin) performance test.

**Response to Comment 14:**

The USEPA's position the Permittee is referring to in the August 20, 1998 Public Comment and Responses - Municipal Waste Combustion: Background Information Document for Federal Plan is an example facility whose initial performance test lasted 8 hours. The rule does not say all facilities should use an 8-hour block average. The average should be based on the permittee's average carbon mass feed rate from their most recent performance test. According to a conversation with Walt Stevenson the technical contact from U.S. EPA's Office of Air Quality Planning and Standards, Emission Standards Division, the average is calculated from all the runs of the performance test and the total amount of time

of those runs to get the average carbon mass feed rate. This rate may change as a result of the next performance test. Condition D.1.17(a)(4)(A) and (B) will be changed to clarify this requirement.

#### D.1.17 Record Keeping and Reporting Requirements for NSPS

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##### Record Keeping

Pursuant to 326 IAC 11-7-8, 326 IAC 3-5, 40 CFR 60.39b, Subpart Cb, and 40 CFR 60.59, Subpart Eb, as amended by 60FR 45124 (August 25, 1997)

- (a) The Permittee subject to the standards under Sect. 60.52b, 60.53b, 60.54b, 60.55b, and 60.57b shall maintain records of the information specified in paragraphs (a)(1) through (a)(12) below, as applicable, for each affected facility for a period of at least 5 years.
- (4) For affected facilities that apply activated carbon for mercury or dioxin/furan control, the records specified in paragraphs (a)(4)(A) through (a)(4)(E) below.
  - (A) The average carbon mass feed rate (in pounds per hour) estimated as required under Sec. 60.58b(m)(1)(i) **is estimated as an average based on the total time period of all the test runs** during the initial mercury performance test and all subsequent annual performance tests, with supporting calculations.
  - (B) The average carbon mass feed rate (in pounds per hour) estimated as required under Sec. 60.58b(m)(1)(ii) **is estimated as an average based on the total time period of all the test runs** during the initial dioxin/furan performance test and all subsequent annual performance tests, with supporting calculations.

#### Comment 15:

##### Section D. Condition D.1.17(a)(4)(E)

The Permittee proposes that the last sentence of the second paragraph should be modified as shown below with new language identified as *italics*.

The Permittee intends to utilize a gravimetric feeder *or equivalent* to estimate carbon mass feed rate *as an 8-hour block average* for the carbon injection system.

The rationale for the “*or equivalent*” language is to provide the Facility with the flexibility to use an alternative device if one is made available. The rationale for the *as an 8-hour block average* language was provided in Comment No. 10 above.

#### Response to Comment 15:

IDEM agrees with the Permittee’s first revision to Condition D.1.17(a)(4)(E) requesting to add “or equivalent” after gravimetric feeder to provide the facility with the flexibility to use an alternative device. Please refer to response number 10 for the Permittee’s second request of “8-hour block average” for Condition D.1.17(a)(4)(E). IDEM will revise this condition to explain the average should be based on the average time period of all the test runs of the most recent performance test.

#### D.1.17 Record Keeping and Reporting Requirements for NSPS

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- (a) The Permittee subject to the standards under Sect. 60.52b, 60.53b, 60.54b, 60.55b, and 60.57b shall maintain records of the information specified in paragraphs (a)(1) through (a)(12) below, as applicable, for each affected facility for a period of at least 5 years.
- (4) For affected facilities that apply activated carbon for mercury or dioxin/furan control, the records specified in paragraphs (a)(4)(A) through (a)(4)(E) below.

- (E) Carbon injection system operating parameter data for the parameter(s) that are the primary indicator(s) of carbon feed rate (e.g., screw feeder speed).

The Permittee intends to utilize a gravimetric feeder **or equivalent** to estimate carbon mass feed rate **estimated as an average based on the total time period of all the test runs during the most recent performance test** for the carbon injection system.

**Comment 16:**

Section D. Condition D.1.17(b)(5)

The Permittee proposes that the sentence should be modified as shown below with new language identified as *italics*.

For affected facilities that apply activated carbon injection for mercury control, the Permittee shall submit the *8 hour block* average carbon mass feed rate recorded under paragraph (a)(4)(A) above.

The rationale for the *as an 8-hour block average* language was provided as Comment No. 10 above.

**Response to Comment 16:**

Refer to response to Comment 11.

**D.1.17 Record Keeping and Reporting Requirements for NSPS**

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- (b) The Permittee shall submit the information specified in paragraphs (b)(1) through (b)(6) of this section in the initial performance test report.

- (5) For affected facilities that apply activated carbon injection for mercury control, the Permittee shall submit the average carbon mass feed rate recorded **as an average based on the total time period of all the test runs during the most recent performance** under paragraph (a)(4)(A) above.

**Comment 17:**

Section D. Condition D.1.17(b)(6)

The Permittee proposes that the sentence should be modified as shown below with new language identified as *italics*.

For affected facilities that apply activated carbon injection for dioxin/furan control, the Permittee shall submit the *8 hour block* average carbon mass feed rate recorded under paragraph (a)(4)(A) above.

The rationale for the *as an 8-hour block* language was provided as Comment No. 10 above.

**Response to Comment 17:**

The U.S. EPA's position the Permittee is referring to in the August 20, 1998 Public Comment and Responses - Municipal Waste Combustion: Background Information Document for Federal Plan is an example facility whose initial performance test lasted 8 hours. The rule does not say all facilities should use an 8-hour block average. The average should be based on the Permittee's average carbon mass feed rate from their most recent performance test. According to a conversation with Walt Stevenson the technical contact from U.S. EPA's Office of Air Quality Planning and Standards, Emission Standards

Division, the average is calculated from all the runs of the performance test and the total amount of time of those runs to get the average carbon mass feed rate. This rate may change as a result of the next performance test. Condition D.1.17(b)(6) will be changed to clarify this requirement.

#### D.1.17 Record Keeping and Reporting Requirements for NSPS

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- (b) The Permittee shall submit the information specified in paragraphs (b)(1) through (b)(6) of this section in the initial performance test report.
- (6) For those affected facilities that apply activated carbon injection for dioxin/furan control, the Permittee shall submit the average carbon mass feed rate recorded **as a block average based on the total time period of all the test runs during the most recent performance test** under paragraph (a)(4)(B) above.

#### Comment 18:

Section D. Additional Special Requirements. Introductory Language. Page 52 of 65

The Permittee proposes that the introductory paragraph should be modified as shown below with new language identified as italics.

If duplicate requirements are found between the incorporated sections of the Consent Decree filed January 12, 1993 and 40 CFR 60, Subpart Cb, the Permittee shall meet the more stringent requirement between the Consent Decree and the Part 70 Operating Permit. "There are additional requirements specified from a Consent Decree filed January 12, 1993, Cause number 49F12-9110-OV-2155 that are carried over into the Part 70 Permit. The conditions not carried over from the Consent Decree were either satisfied or were not required by the consent decree to be incorporated into the Part 70 permit." These special requirements "of the Consent Decree that are carried over into the Part 70 Permit" are not federally enforceable.

The additional term is to provide as a link between the Technical Support Document and to provide clarity to the introduction and how it is to be applied.

#### Response to Comment 18:

The additional language suggested by the Permittee is acceptable to IDEM and will be added to the permit.

#### Additional Special Requirements

If duplicate requirements are found between the incorporated sections of the Consent Decree filed January 12, 1993 and 40 CFR 60, Subpart Cb, the Permittee shall meet the more stringent requirement between the Consent Decree and the Part 70 Operating Permit. **There are additional requirements specified from a Consent Decree filed January 12, 1993, Cause number 49F12-9110-OV-2155 that are carried over into the Part 70 Permit. The conditions not carried over from the Consent Decree were either satisfied or were not required by the consent decree to be incorporated into the Part 70 permit.** These special requirements **of the Consent Decree that are carried over into the Part 70 Permit** are not federally enforceable.

#### Comment 19:

Section D. Condition D.1.19(b). Page 52 of 65.

The Permittee proposes that the term "*Prefix*" in the next to last sentence should be modified to read as "*Prefix or equivalent*".

The Permittee is in the process of changing out the Prefix system with an alternative system that provides the same functions required of Prefix but it will also be Y2K compliant and include other improvements.



**Response to Comment 19:**

The Permittee's proposed change to Condition D.1.19(b) is acceptable to IDEM and the change will be made to the permit.

**D.1.19 Operation and Maintenance Plan**

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Pursuant to the Consent Decree filed January 12, 1993, for Cause number 49F12-9110-OV-2155, Section G, Paragraphs 1 and 5:

- (b) The Permittee shall combine all current operation and preventative maintenance plans, including the Baghouse/Scrubber Preventive Maintenance Plan, Boiler Operation and Maintenance Plan and the Maintenance Management System, into one plan to be described as the Operation and Maintenance Plan (O & M Plan), containing sections on (1) Maintenance Management System, (2) Auxiliary Burner, (3) Martin Stoker/Ash Discharger, (4) Waste Feed, (5) Boiler, and (6) Baghouse/Scrubber. Each section shall describe the applicable work practices to assure the proper operation of the applicable equipment and systems which may impact air emissions from the Facility and shall describe or reference related work orders for such equipment and systems included in the Prefix **or equivalent** system described in the Maintenance Management System section of the O & M Plan. The Permittee has satisfied this condition.

**Comment 20:**

Section D. Condition D.1.20, Page 52 of 65.

The Permittee proposes the following additional language:

This special requirement is not federally enforceable and does not apply during periods of startup, shutdown and malfunction as defined by Condition D.1.12 of this permit.

**Response to Comment 20:**

The Consent Decree does not indicate that the condition does not apply during periods of startup, shutdown, and malfunction, therefore, no change will be made in the permit.

**Comment 21:**

Section D. Condition D.1.22(a)(5). Page 53 of 65.

The Permittee proposes removal of the term "inlet" because CO is only measured at the economizer outlet location.

**Response to Comment 21:**

The Permittee's proposed change to Condition D.1.22(a)(5) is acceptable to IDEM and the change will be made to the permit.

**D.1.22 Record Keeping and Reporting Requirements for Consent Decree**

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Pursuant to Consent Decree filed January 12, 1993, Cause number 49F12-9110-OV-2155, Section F paragraphs 1 through 5 and paragraph 9:

- (a) The Permittee shall submit the following information to both IDEM and the OES in a monthly report:
- (5) Highest ~~outlet~~~~inlet~~ CO concentration

**Comment 22:**

Section D. Condition D.1.22(b)(1). Page 53 of 65.

The Permittee proposes that the “*temperature*” term in the condition should be replaced with “*flue gas temperature at the baghouse inlet*” to be consistent with the reporting requirements identified on page 43 of 65 as Condition D.1.12(i)(6).

#### Response to Comment 22:

IDEM agrees with the Permittee’s proposed revision to Condition D.1.22(b)(1). As a result IDEM will make the suggested revision to D.1.22(b)(1).

#### D.1.22 Record Keeping and Reporting Requirements for Consent Decree

Pursuant to Consent Decree filed January 12, 1993, Cause number 49F12-9110-OV-2155, Section F paragraphs 1 through 5 and paragraph 9:

- (b) In addition to the monthly report, for each instance of an exceedance of an emission limit in the Permits, the Permittee shall submit to IDEM and the OES, the following:
  - (1) Monitoring data (raw, corrected and averaged values) for that pollutant and all other monitored pollutants and for ~~temperature~~**flue gas temperature at the baghouse inlet**, the time the use of natural gas in a Unit commenced and ended, steam flow, and oxygen extending before and after the exceedance for a period equal to the hours of averaging time for the particular pollutant; and
  - (2) Documentation indicating the hours when garbage was on the grate during the period of the exceedance, the causes of all emissions which occurred during the exceedance and the causes of all emissions which occurred during the exceedance and the actions taken to correct said excess emissions. Upon request, the Permittee shall submit to IDEM or the OES, as soon as practicable, any other data or information which is relevant to the exceedance.

#### Comment 23:

Section D. Condition D.1.22(b)(2), Page 53 of 65.

The Permittee proposes that the last sentence should be removed because it is the same as the prior sentence. This appears to be a typo type of correction.

#### Response to Comment 23:

IDEM agrees with the Permittee’s comment and the last sentence of Condition D.1.22(b)(2) will be deleted.

#### D.1.22 Record Keeping and Reporting Requirements for Consent Decree

Pursuant to Consent Decree filed January 12, 1993, Cause number 49F12-9110-OV-2155, Section F paragraphs 1 through 5 and paragraph 9:

- (b) In addition to the monthly report, for each instance of an exceedance of an emission limit in the Permits, the Permittee shall submit to IDEM and the OES, the following:
  - (2) Documentation indicating the hours when garbage was on the grate during the period of the exceedance, the causes of all emissions which occurred during the exceedance and the causes of all emissions which occurred during the exceedance and the actions taken to correct said excess emissions. Upon request, the Permittee shall submit to IDEM or the OES, as soon as practicable, any other data or information which is relevant to the exceedance. ~~The Permittee shall submit to IDEM or the OES, as soon as practicable, any other data or information which is relevant to the exceedance.~~

**Comment 24:**

Section D. Condition D.1.22(e). Page 54 of 65.

The first and only sentence of the second paragraph includes a reference to Condition D.1.22(d) that should be D.1.22(e).

**Response to Comment 24:**

IDEM agrees with the Permittee's comment, the correct reference is D.1.22(e).

**D.1.22 Record Keeping and Reporting Requirements for Consent Decree**

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Pursuant to Consent Decree filed January 12, 1993, Cause number 49F12-9110-OV-2155, Section F paragraphs 1 through 5 and paragraph 9:

- (e) The Permittee shall report to IDEM malfunctions of any facility or emission control equipment in accordance with 326 IAC 1-6-2 and malfunctions of any monitoring system in accordance with 326 IAC 3-5. Claims that exceedances due to malfunctions are not violations shall be made pursuant to 326 IAC 1-6-4, shall be made in writing and shall be meet the definition under 326 IAC 1-2-39. The Permittee also shall report all malfunctions to the OES in accordance with the applicable regulations adopted by the OES and in effect at the time.

Compliance with Section B - Emergency Provisions will satisfy the requirement of Condition D.1.22(~~de~~).

**Comment 25:**

Section D. Condition D.1.22(f), Page 54 of 65.

In the first paragraph of this condition, please change "*Facility Manager*" to "*Facility and/or General Manager*" and also please change "*Plant Superintendent*" to "*Chief Engineer*". These changes are requested to make the permit consistent with corporate titles and specifically those used at the Facility.

**Response to Comment 25:**

IDEM agrees with the Permittee's comment and will change Condition D.1.22(b)(2) as suggested to make the permit consistent with the facilities corporate titles.

**D.1.22 Record Keeping and Reporting Requirements for Consent Decree**

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Pursuant to Consent Decree filed January 12, 1993, Cause number 49F12-9110-OV-2155, Section F paragraphs 1 through 5 and paragraph 9:

- (f) All data derived from the continuous emissions monitors and temperature monitors (other than the data submitted pursuant to paragraph 9 below) which The Permittee submits in a written report format to IDEM and the OES shall be quality assured pursuant to the approved quality assurance/quality control plan referenced in paragraph 8 below and attested as to its accuracy by the Facility **and/or General Manager** or **Chief Engineer**. ~~Plant Superintendent~~. All additional data which the Permittee submits in a written report format to IDEM and the OES shall be attested as to its accuracy by the Facility **and/or General Manager** or **Chief Engineer**. ~~Plant Superintendent~~.

**Comment 26:**

Section D. Condition D.1.22(i). Page 55 of 65.

The Permittee is proposing that this condition should recognize that the Facility by itself cannot achieve compliance with the condition because IDEM and/or OES must be able to receive the specified data

transfers. If IDEM and/or OES are not ready or able to receive the specified information, the Facility should not be deemed to be out of compliance.

**Response to Comment 26:**

The Permittee suggested after this public comment was submitted to IDEM to give IDEM and OES access to their data via IDEM computers at anytime. This will satisfy Condition D.1.22(i) and this language will be added to the permit.

**D.1.22 Record Keeping and Reporting Requirements for Consent Decree**

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Pursuant to Consent Decree filed January 12, 1993, Cause number 49F12-9110-OV-2155, Section F paragraphs 1 through 5 and paragraph 9:

- (e) The Permittee shall report to IDEM malfunctions of any facility or emission control equipment in accordance with 326 IAC 1-6-2 and malfunctions of any monitoring system in accordance with 326 IAC 3-5. Claims that exceedances due to malfunctions are not violations shall be made pursuant to 326 IAC 1-6-4, shall be made in writing and shall be meet the definition under 326 IAC 1-2-39. The Permittee also shall report all malfunctions to the OES in accordance with the applicable regulations adopted by the OES and in effect at the time.

Compliance with Section B - Emergency Provisions will satisfy the requirement of Condition D.1.22~~(e)~~.

- (i) The Permittee shall transfer daily to IDEM and the OES via modems and compatible computer hardware owned, operated and maintained by IDEM and OES respectively, the Facility's continuously monitored raw data for the prior calendar day for all regulated pollutants, temperature, steam flow, carbon dioxide and oxygen. The Permittee shall obtain authorization from its software licensor to allow IDEM and OES to use the software necessary for IDEM and OES to collect and analyze the data and produce reports in the same format as the reports generated by the Permittee and submitted to IDEM and OES. The Permittee further agrees it will provide one day of training for the employees of IDEM and OES with respect to such software.

**or**

**The Permittee alternatively shall give complete electronic access to IDEM and OES via computer connection at any time. The connection shall give IDEM and OES access to all monitoring data. This alternative requirement satisfies Condition D.1.22(i).**

**Comment 27:**

The Permittee understands that the annual emission limits in the section titled in the TSD, "Limited Potential to Emit" were determined by the facility via an October 13, 1999 application with the exception of VOC's. The annual limit of 14.45 TPY is for one unit. The Permittee proposes that the correct value is 43.35 TPY.

**Response to Comment 27:**

IDEM agrees with the Permittee's comment that 14.45 tpy is for one unit and the correct value for all three combustors is 43.35 tpy. No changes have been made to the TSD because the OAQ prefers that the Technical Support Document reflect the permit that was on public notice. Changes to the permit or technical support material that occur after the public notice are documented in this Addendum to the Technical Support Document. This accomplishes the desired result of ensuring that these types of concerns are documented and part of the record regarding this permit decision.

Per a phone conversation with the Permittee the following static pressure drop across the baghouse revisions were made to the permit:

#### D.2.5 Parametric Monitoring

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The Permittee shall record the total static pressure drop across the baghouse during the transfer of lime to the storage silo and during the removal of lime from the storage silo to an alternate storage area. When for any one reading, the pressure drop across the baghouse is outside the normal range of ~~2-0~~ **3.0** and ~~5-0~~ **7.0** inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

#### D.3.5 Parametric Monitoring

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The Permittee shall record the total static pressure drop across the baghouse used in conjunction with the dry activated carbon storage silo, at least once while filling the silo. When for any one reading, the pressure drop across the baghouse is outside the normal range of ~~3-0~~ **0.5** and ~~6-0~~ **4.0** inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

Upon further review, the OAQ has decided to make the following revisions to the permit (bolded language has been added, the language with a line through it has been deleted). The Table Of Contents has been modified to reflect these changes.

#### Change 1:

Indianapolis Environmental Resource Management Division (ERMD) was changed to Indianapolis Office of Environmental Services (OES) throughout the permit.

#### Change 2:

In order to avoid confusion for future renewals as to what is the "original" date, IDEM, OAQ is referring to, the following change has been made:

#### B.2 Permit Term [326 IAC 2-7-5(2)] [326 IAC 2-1.1-9.5]

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This permit is issued for a fixed term of five (5) years from the ~~original~~ **issuance** date ~~of this permit~~, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit or of permits issued pursuant to Title IV of the Clean Air Act and 326 IAC 21 (Acid Deposition Control).

#### Change 3:

Since Condition B.7(c) (Duty to Supplement and Provide Information) already addresses confidentiality, the last sentence of (b) was revised to remove the statement about confidential information and (c) was updated for clarity as follows:

#### B.7 Duty to Supplement and Provide Information [326 IAC 2-7-4(b)] [326 IAC 2-7-5(6)(E)] [326 IAC 2-7-6(6)]

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(b) The Permittee shall furnish to IDEM, OAQ and Indianapolis Office of Environmental Services (OES), within a reasonable time, any information that IDEM, OAQ, may request

in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34). Upon request, the Permittee shall also furnish to IDEM, OAQ and Indianapolis OES, copies of records required to be kept by this permit. ~~or, for information claimed to be confidential, the Permittee may furnish such records directly to the U. S. EPA along with a claim of confidentiality. [326 IAC 2-7-5(6)(E)]~~

- (c) **For information furnished by the Permittee to IDEM, OAQ and Indianapolis OES,** ~~the~~ Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

#### Change 4:

Condition B.11 (Preventive Maintenance Plan) has been revised because it is not necessary to state twice that the PMP does not need to be certified. The statement is more appropriately contained in (c), it has been removed from (a) as follows:

**B.11 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)] [326 IAC 2-7-6(1) and (6)] [326 IAC 1-6-3]**

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- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit, including the following information on each facility:
- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
  - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
  - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If, due to circumstances beyond the Permittee's control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

~~The PMP and the~~ PMP extension notification **does** not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

#### Change 5:

The requirement to include emergencies in the Quarterly Deviation and Compliance Monitoring Report has been moved from Condition B.15 to Condition B.12. Condition B.12(e) Emergency Provisions has been revised to correct the rule cite and Condition B.12(h) has been added as follows:

**B.12 Emergency Provisions [326 IAC 2-7-16]**

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- (e) IDEM, OAQ, may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4(c)(409) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAQ, by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.
- (g) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
- (h) **The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.**

**B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]**

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- ~~(c) — Emergencies shall be included in the Quarterly Deviation and Compliance Monitoring Report.~~

**Change 6:**

In order to be consistent with language in 326 IAC 2-7-12(b)(2), the “(D)(i)” of rule listed in (b) of Permit Revisions Under Economic Incentives and Other Programs condition has been removed.

**B.19 Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-7-5(8)]  
[326 IAC 2-7-12 (b)(2)]**

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- (b) Notwithstanding 326 IAC 2-7-12(b)(1)(D)(i) and 326 IAC 2-7-12(c)(1), minor Part 70 permit modification procedures may be used for Part 70 modifications involving the use of economic incentives, marketable Part 70 permits, emissions trading, and other similar approaches to the extent that such minor Part 70 permit modification procedures are explicitly provided for in the applicable State Implementation Plan (SIP) or in applicable requirements promulgated or approved by the U.S. EPA.

**Change 7:**

In order to be consistent with 326 IAC 2-7-20(a)(4), the rule cite in Condition B.20(a)(5) has been revised as follows:

**B.20 Operational Flexibility [326 IAC 2-7-20] [326 IAC 2-7-10.5]**

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- (a) (5) The Permittee maintains records on-site which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-7-20(b), (c), or (e) and makes such records available, upon reasonable request, for public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ, and Indianapolis OES, in the notices specified in 326 IAC 2-7-20(b)(1), (c)(1), and (e)(2).

**Change 8:**

326 IAC 2-1.1-7 specifies that nonpayment may result in revocation of the permit. This is not specified in 326 IAC 2-7; therefore, this rule cite is being added to Condition B.24. Also, the section and phone number of who the Permittee can contact has been corrected in (c) as follows:

**B.24 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)] [326 IAC 2-1.1-7]**

- 
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-~~0425 4230~~(ask for OAQ, ~~Technical Support and Modeling Section I/M & Billing Section~~), to determine the appropriate permit fee.

**Change 9:**

Condition C.1 will be deleted because no operations at Covanta are subject to 326 IAC 6-3-2(c). The remaining conditions in Section C will be renumbered.

~~C.1 Particulate Matter Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour [326 IAC 6-3-2(c)]~~

~~Pursuant to 326 IAC 6-3-2(c), the allowable particulate matter emissions rate from any process not already regulated by 326 IAC 6-1 or any New Source Performance Standard, and which has a maximum process weight rate less than 100 pounds per hour shall not exceed 0.551 pounds per hour.~~

**Change 10:**

Condition C.6(e) (Asbestos Abatement Projects) has been revised to correct the rule cite.

~~C.6 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]~~

- (e) Procedures for Asbestos Emission Control  
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-~~41~~, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.

**Change 11:**

The following was added to Condition C.8 (Compliance Requirements) to state what IDEM, OAQ does when stack testing, monitoring, or reporting is required to assure compliance with applicable requirements as follows:

~~C.8 Compliance Requirements [326 IAC 2-1.1-11]~~

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements **by issuing an order under 326 IAC 2-1.1-11**. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

**Change 12:**

The following revisions were made to clarify the language in the following condition:

~~C.4211 Maintenance of **Continuous** Opacity Monitoring Equipment [326 IAC 2-7-5(3)(A)(iii)]~~

- (a) **The Permittee shall install, calibrate, maintain, and operate all necessary continuous opacity monitoring systems (COMS) and related equipment. In addition, prompt corrective action shall be initiated whenever indicated.**
- (~~a~~b) In the event that a breakdown of the continuous opacity monitoring equipment occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem.
- (~~b~~c) Whenever the continuous opacity monitor (COM) is malfunctioning or will be down for **calibration, maintenance, or repairs** ~~or adjustments~~ for a period of four (4) hours or



more, a calibrated backup COM shall be brought online within four (4) hours of shutdown of the primary COM, if possible. If this is not possible, visible emission readings shall be performed in accordance with 40 CFR 60, Appendix A, Method 9 for a minimum of one (1) hour beginning four (4) hours after the start of the malfunction or down time.

- (e1) If the reading period begins less than one hour before sunset, readings shall be performed until sunset. If the first required reading period would occur between sunset and sunrise, the first reading shall be performed as soon as there is sufficient daylight.
- (e2) Method 9 opacity readings shall be repeated for a minimum of one (1) hour at least once every four (4) hours during daylight operations, until such time that the continuous opacity monitor is back in operation.
- (e3) ~~All of the~~ The opacity readings during this period shall be reported in the Quarterly Compliance Monitoring Reports, ~~unless there are ANY observed six minute averaged exceedances, in which case, these shall be reported to the air compliance inspector within four (4) working hours.~~
- (fd) **Nothing in this condition, or in Section D of this permit, shall excuse the Permittee from complying with the requirements to operate a continuous opacity monitoring system pursuant to 326 IAC 3-5, and 40 CFR 60 Subpart A, Cb, and Eb. The Permittee shall install, calibrate, quality assure, maintain, and operate all necessary opacity monitors and related equipment. In addition, prompt corrective action shall be initiated whenever indicated.**

**Change 13:**

A change to Rule 326 IAC 9-1-2 causes the language in Condition D.1.5 to change. The revised language is as follows.

**D.1.5 Carbon Monoxide Emission Limits [326 IAC 9-1-2]**

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Pursuant to 326 IAC 9-1-2, emissions of carbon monoxide shall be limited to the ~~following requirements of 326 IAC 9-1-2(3) unless specific carbon monoxide emission limits have been established in 326 IAC 11, 326 IAC 20, 40 CFR 60, 40 CFR 62, or 40 CFR 63.~~  
Compliance with 326 IAC 11-7-3 and 40 CFR 60, Subpart Cb satisfies 326 IAC 9-1-2. ~~alternative limitations and requirements have been established in a Part 70 permit in accordance with 326 IAC 2-7-24.~~

~~Refuse incineration and burning equipment. No person shall cause or allow the discharge of carbon monoxide from refuse incineration or burning equipment, unless the waste gas stream is burned in a direct flame afterburner or is controlled by other means approved by the commissioner.~~

~~The provisions of 326 IAC 9-1-2 are not federally enforceable.~~

**Change 14:**

Condition D.1.8 (Operator Training and Certification Requirements) have been revised because 6 months after the startup date or September 1, 1999, whichever is later, has past and this condition is now required.

**D.1.8 Municipal Waste Combustors Operator Training and Certification Requirements**

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Pursuant to 326 IAC 11-7-5, 40 CFR 60.35b, Subpart Cb and 40 CFR 60.54b Subpart Eb, as amended by 60FR 45124 (August 25, 1997):

- (a) ~~No later than the date 6 months after the date of startup of an affected facility or on September 1, 1999, whichever is later, e~~ Each chief facility operator and shift supervisor, employed by the Permittee shall obtain and maintain a current provisional operator certification from either the American Society of Mechanical Engineers [QRO-1-1994 (incorporated by reference--see 40 CFR 60.17 of Subpart A)] or a State certification program.
- (b) ~~Not later than the date 6 months after the date of startup of an affected facility or on September 1, 1999, whichever is later, e~~ Each chief facility operator and shift supervisor shall have completed full certification or shall have scheduled a full certification exam with either the American Society of Mechanical Engineers [QRO-1-1994 (incorporated by reference--see 40 CFR 60.17 of Subpart A)] or a State certification program.
- (c) The Permittee shall not allow the combustor to be operated at any time unless one of the following persons is on duty and at the affected facility: A fully certified chief facility operator, a provisionally certified chief facility operator who is scheduled to take the full certification exam according to the schedule specified in 40 CFR 60.54b(b), a fully certified shift supervisor, or a provisionally certified shift supervisor who is scheduled to take the full certification exam according to the schedule specified in 40 CFR 60.54b(b).

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~~(1) The requirement specified in 40 CFR 60.54b(c) shall take effect 6 months after the date of startup of the affected facility or on September 1, 1999, whichever is later.~~

**Change 15:**

Condition D.1.9 was revised to include the mass emission rates for VOC, nitrogen dioxide, carbon monoxide, lead and mercury from the previous Construction Permit issued April 23, 1986 into this Title V permit.

**D.1.9 Volatile Organic Compound Emissions Mass Emission Rates**

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- (a) **Pursuant to Construction Permit PSD (49) 1602, issued April 23, 1986,** ~~the total~~ non-methane hydrocarbon (VOC) mass emission rate shall not exceed 3.30 pounds per hour and an annual emission rate of 14.45 tons per twelve (12) consecutive months while combusting only municipal waste.
- (b) **Pursuant to Construction Permit PSD (49) 1602, issued April 23, 1986,** nitrogen dioxide mass emission rate shall not exceed 151.2 pounds per hour per combustion unit and an annual emission rate of 662.25 tons per twelve (12) consecutive months while combusting only municipal waste.
- (c) **Pursuant to Construction Permit PSD (49) 1602, issued April 23, 1986,** carbon monoxide mass emission rate shall not exceed 45.4 pounds per hour per combustion unit and an annual emission rate of 198.85 tons per twelve (12) consecutive months while combusting only municipal waste.
- (d) **Pursuant to Construction Permit PSD (49) 1602, issued April 23, 1986,** lead mass emission rate, averaged over a three month period , shall not exceed 2.01 pounds for three (3) combustion units.
- (e) **Pursuant to Construction Permit PSD (49) 1602, issued April 23, 1986,** mercury mass emission rate, averaged over all 24-hour rolling periods, shall not exceed a mass emission rate of 0.54 pounds per hour for the three (3) combustion units.

**Change 16:**

The following condition was changed to clarify that the preventive maintenance plan also applies to the control device:

**D.1.11 Preventive Maintenance Plan [326 IAC 2-7-5(13)]**

A Preventive Maintenance Plan, in accordance with Section C - Preventive Maintenance Plan, of this permit, is required for this facility **and the control devices**.

**Change 17:**

The term "once per shift" was removed from Conditions D.2.4 and D.2.8 because lime is not received every shift. The Permittee shall perform the visible emission notations during the transfer of lime to the storage silo and during the removal of lime from the storage silo to an alternate storage area. In addition, the following revisions were made to clarify the language in the following conditions:

**D.2.4 Visible Emissions Notations**

- (a) ~~Once per shift~~ Visible emission notations of the transfer points exhaust shall be performed during normal daylight operations during the transfer of lime to the storage silo and during the removal of lime from the storage silo to an alternate storage area. A trained employee shall record whether emissions are normal or abnormal.

**D.2.6 Baghouse Inspections**

An inspection shall be performed **within the last month of** each calendar quarter of all bags controlling the lime silo. All defective bags shall be replaced.

**D.2.8 Record Keeping Requirements**

- (a) To document compliance with Condition D.2.4, the Permittee shall maintain records of ~~once per shift~~ **the** visible emission notations of the transfer points exhaust during the transfer of lime to the storage silo and during the removal of lime from the storage silo to an alternate storage area.
- (b) To document compliance with Condition D.2.5, the Permittee shall maintain records of the differential **static** pressure **during normal operation** of the lime silo baghouse.

**D.3.6 Baghouse Inspections**

An inspection shall be performed **within the last month of** each calendar quarter of all bags controlling the dry activated carbon storage silo. All defective bags shall be replaced.

**D.3.8 Record Keeping Requirements**

- (a) To document compliance with Condition D.3.4, the Permittee shall maintain records of once per shift visible emission notations of the transfer points exhaust during the transfer to activated carbon to the storage silo and during the removal of carbon from the storage silo to an alternate storage area.
- (b) To document compliance with Condition D.3.5, the Permittee shall maintain records of the differential **static** pressure when filling the silo.

**Change 18:**

The first box on the Emergency Occurrence Report form was revised to include the word "working" in order to be consistent with 326 IAC 2-7-16(b)(5) and the Emergency Provision.

- 9** This is an emergency as defined in 326 IAC 2-7-1(12)
- C The Permittee must notify the Office of Air Quality (OAQ), within four (4) business hours (1-800-451-6027 or 317-233-5674, ask for Compliance Section); and
  - C The Permittee must submit notice in writing or by facsimile within two (2) **working** days (Facsimile Number: 317-233-5967), and follow the other requirements of 326 IAC 2-7-16.

**Change 19:**

The first sentence in the Quarterly Deviation and Compliance Monitoring Report turned the quarterly report on deviations into a compliance certification. That poses a conflict with the provisions that require an annual certification. Therefore, the sentence has been deleted from the Quarterly Deviation and Compliance Monitoring Report as follows:

**PART 70 OPERATING PERMIT  
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Page 1 of 2

~~This report is an affirmation that the source has met all the requirements stated in this permit.~~ This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. Deviations that are required to be reported by an applicable requirement shall be reported according to the schedule stated in the applicable requirement and do not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".

## Indiana Department of Environmental Management Office of Air Quality

### Technical Support Document (TSD) for a Part 70 Operating Permit

#### Source Background and Description

Source Name: Covanta Indianapolis, Inc.  
 Source Location: 2320 South Harding Street, Indianapolis, Indiana 46221  
 County: Marion County  
 SIC Code: 4953  
 Operation Permit No.: T097-5985-00123  
 Permit Reviewer: ERG/EG

The Office of Air Quality (OAQ) has reviewed a Part 70 permit application from Covanta Indianapolis, Inc. relating to the operation of a stationary municipal solid waste combustion facility. During review of the Part 70 permit application, the source name was changed from Ogden Martin Systems of Indianapolis, Inc. to Covanta Indianapolis, Inc.

#### Source Definition

This source consists of only one (1) plant. However, another source, Belmont is on a contiguous property. Both of these sources are owned by the City of Indianapolis and have the same 2-digit SIC code. However, these sources do not forward any waste materials to each other and no employees or equipment are shared. The plants are operated by separate independent entities and are each major sources under the Part 70 definition. The IDEM proposes to issue separate Part 70 permits to these sources.

#### Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

- (a) Three (3) mass burn waterwall municipal solid waste combustion units, identified as EU#1, EU#2, and EU#3, capable of burning solid waste 726 tons per day at 5200 Btu/lb, municipal solid waste only, which is equivalent to 192,440 pounds per hour of steam. Each combustor unit is equipped with two (2) 140 mmBtu per hour natural gas fired burners used for start up, shutdown, and flame stabilization.
  - (1) The flue gas from each combustion unit is controlled by :
    - (A) a spray dryer absorber with hydrated lime slurry controlling acid gas, identified as CE1A, CE2A, and CE3A;
    - (B) fabric filter bags controlling particulates, identified as CE1B, CE2B, and CE3B in parallel; exhausting to stack vents 1, 2, and 3, with CEMS for NO<sub>x</sub>, CO, SO<sub>2</sub>, O<sub>2</sub>, and a COM for opacity.
    - (C) a Mercury Emissions Control System - comprised of one (1) dry activated carbon storage silo equipped with an integrated baghouse system with a maximum storage capacity of 3,000 cubic feet; three (3) outlet hoppers one for each combustion unit; three (3) surge bins, one for each

combustion unit, each equipped with gravimetric feeders for controlling the carbon feed rate to each combustion unit; and three(3) injection trains equipped with pneumatic conveying equipment to transport (blow) the carbon from the feeder to the flue gas duct of each combustion unit.

- (D) a Nitrogen Oxide Emission Control System - one (1) selective noncatalytic reduction (SNCR) system comprised of one (1) 20,000 gallon, aqueous ammonia storage tank; two (2) ammonia feed pumps to supply ammonia from the storage tank to the injection nozzle system; and three (3) injection nozzle systems equipped with carrier air blowers.

- (2) A Fugitive Ash Emission Control System - one (1) dustmaster fly ash conditioning system comprised of five (5) screw conveyors that convey fly ash from the scrubber baghouse to the ash storage silo; one (1) ash storage silo that batch feeds the fly ash into the dustmaster conditioning system; and one (1) dustmaster fly ash conditioning system that mixes water and fly ash to produce a consistent moisture content that reduces fugitive dust.

- (b) Lime Silo equipped with a vent fabric filter for particulate control.

#### **Unpermitted Emission Units and Pollution Control Equipment**

There are no unpermitted facilities operating at this source during this review process.

#### **New Emission Units and Pollution Control Equipment**

There are no new facilities to be reviewed during this review process.

#### **Insignificant Activities**

The source also consists of the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) Space heaters, process heaters, or boilers using natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour.
- (b) Equipment powered by internal combustion engines of capacity equal to or less than 500,000 Btu/hour, except where total capacity of equipment operated by one stationary source exceeds 2,000,000 btu/hour.
- (c) Combustion source flame safety purging on startup.
- (d) A gasoline fuel transfer and dispensing operation handling less than or equal to 1,300 gallons per day, such as filling of tanks, locomotives, automobiles, having a storage capacity less than or equal to 10,500 gallons.
- (e) A petroleum fuel, other than gasoline, dispensing facility, having a storage capacity of less than or equal to 10,500 gallons, and dispensing less than or equal to 230,00 gallons per month.
- (f) Vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids.
- (g) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment.
- (h) Closed loop heating and cooling systems.

- (i) Any operation using aqueous solutions containing less than 1% by weight of VOCs excluding HAPs.
- (j) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.
- (k) Heat exchanger cleaning and repair.
- (l) Paved and unpaved roads and parking lots with public access.
- (m) Equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup, including catch tanks, temporary liquid separators, tanks, and handling equipment.
- (n) Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling tower.
- (o) On-site fire and emergency response training approved by the department.
- (p) Emergency equipment: stationary fire pumps.
- (q) Purge double block and bleed valves.
- (r) Filter or coalescer media changeout.
- (s) Vents from ash transport systems not operated at positive pressure.
- (t) A laboratory as defined in 326 IAC 2-7-1(21)(D).

### Existing Approvals

The source has been operating under previous approvals including, but not limited to, the following. These approvals were issued under the name of Ogden Martin Systems of Indianapolis, Inc.

- (a) Revocation 097-12365-00123 of IDEM-OAQ, issued June 15, 2000, to revoke the first Administrative Amendment 097-11772-00123 issued February 3, 2000.
- (b) Administrative Amendment 097-11772-00123, IDEM - OAQ, issued February 3, 2000
- (c) Significant Source Modification 097-10550-00123, IDEM - OAQ, issued October 13, 1999
- (d) Administrative Amendment 097-10366-00123, IDEM - OAQ, issued February 17, 1999
- (e) Administrative Amendment 097-10133-00123, IDEM - OAQ, issued October 1, 1998
- (f) Exemption 097-9957-00123, IDEM - OAQ, issued September 8, 1998
- (g) FPP 49-13 modification, IDEM -OSHWM, issued August 9, 1994
- (h) Consent Decree, case No. 49F12-9110-OV-2155, Filed January 12, 1993
- (i) Operation Permit, City of Indianapolis, issued May 12, 1989
- (j) FPP 49-13, IDEM -OSHWM, issued May 5, 1989

(k) PSD (49) 1602, IDEM -OAQ, issued April 23, 1986

(l) Construction Permit, City of Indianapolis, issued March 25, 1986

All conditions from previous OAQ approvals were incorporated into this Part 70 permit except the following:

(a) Operation Permit (City of Indianapolis) , issued on March 12, 1989.

Condition Part II, 1-6 and 8:

- (1) Total suspended particulate - 0.01 gr/dscf corrected to 12% CO<sub>2</sub>
- (2) Sulfur Dioxide - 30 ppmv corrected to 12% CO<sub>2</sub>.
- (3) Nitrogen Oxide - 272 ppmv corrected to 12% CO<sub>2</sub>.
- (4) Carbon Monoxide - 135 ppmv corrected to 12% CO<sub>2</sub>.
- (5) Lead - 0.001 gr/dscf corrected to 12% CO<sub>2</sub>.
- (6) Mercury - 0.0028 gr/dscf corrected to 12% CO<sub>2</sub>.
- (7) Hydrogen Chloride - 30 ppmv corrected to 12% CO<sub>2</sub>.

Reason not incorporated: The above limits from the previous Operation Permit were not carried over into the Part 70 permit because the NSPS (40 CFR 60, Subpart Cb) limits applicable to the source are more stringent.

(b) Significant Source Modification, 097-10550-00123, issued October 13, 1999, Condition D1.7(a).

- (1) The total non-methane hydrocarbon (VOC) mass emission rate shall not exceed 3.37 pounds per hour and an annual emission rate of 14.76 tons from the combustion of 16,180 tons of municipal waste in a 12 consecutive month period without NO<sub>x</sub> air pollution control equipment combined with the combustion of municipal waste.

Reason not included: The Source Modification 097-10550-00123 had two options for VOC limits. The limits were based on whether a NO<sub>x</sub> control equipment was available. Prior to issuance of the Part 70 permit NO<sub>x</sub> control equipment was installed. Therefore, the second VOC limit without a NO<sub>x</sub> control equipment is no longer needed.

(c) Significant Source Modification, 097-10550-00123, issued October 13, 1999 (see attachment).

- (1) Condition D.1.7 (b) total non-methane hydrocarbon (VOC) mass emission rate
- (2) Condition D.1.13 Mercury
- (3) Condition D.1.14 Testing Requirement
- (4) Condition D.1.16 Mercury Containing Waste
- (5) Condition D.1.17 Mercury Detection
- (6) Condition D.1.18 (a)-(d)



Reason not incorporated: The affected facility will not be burning medical waste, therefore the conditions listed above which contained limits and compliance monitoring requirements when burning medical waste are no longer applicable.

(d) The following requirements of the Consent Decree:

(1) Section A, Paragraph 1

The Permittee shall, prior to December 31, 1992, conduct a performance test for particulate matter (PM), in accordance with 326 IAC 3-2.1, for each unit at the facility. Subsequent performance tests for PM shall be conducted annually thereafter.

The permit requires annual PM testing in Condition D.1.12(c)(8) pursuant to 40 CFR 60, Subpart Cb.

(2) Section B, paragraph 1

The impact detection device was installed and was determined to be ineffective during the trial period. The Initial Report was submitted on April 7, 1994.

(3) Section B, paragraph 3(a)

Furnace viewport installation. Five additional viewports have been installed in each furnace to allow the operating personnel to have better viewing access of the combustion process and flame height. The Permittee will evaluate the use of furnace video cameras and/or flame scanners to provide continuous monitoring of furnace conditions.

This condition has been satisfied.

(4) Section B, paragraph 3(c)

Combustion control review and optimization. An air heater air outlet temperature control scheme will be evaluated and recommendations will be included in the report described below to provide automatic regulating of the combustion air temperature and thereby enhance the combustion control.

The Permittee completed a Boiler Operation and Combustion Optimization Program.

(4) Section B, paragraph 3(d)

Within sixty (60) days after the effective date of the consent decree, the Permittee shall submit a written report to IDEM and IAPCS summarizing the results of the review of boiler operation and optimization.

The Permittee submitted this report on March 12, 1993.

(5) Section C, paragraphs 1 and 2

The Permittee shall provide the means by which the operator can observe, on a digital readout in degrees Fahrenheit, the temperature calculated to exist in the combustion zone as provided by the Permits, and by which a record in numerical values of that temperature, measured on a per minute and on a fifteen (15) minute block average, will be generated.

The roof temperature thermocouples shall either be replaced annually or checked annually to ensure they have a minimum calibration accuracy of +/- 0.75 percent of the temperature being measured or 2.5 degrees Celsius (36.5° F), whichever is greater. Replacement temperature thermocouples shall be

checked to ensure that they have a minimum calibration accuracy of  $\pm 0.75$  percent of the temperature being measured or 2.5 degrees Celsius (36.5° F), whichever is greater, prior to being placed in service. Documentation of such replacement or accuracy check shall be submitted to IDEM and City of Indianapolis, Department of Public Works, Environmental Resource Management Division (ERMD) annually.

The above requirement from the Consent Decree will not be carried over to the Part 70 permit because the requirement is in the Solid Waste Operating permit.

- (6) Section D, Paragraph 3  
Within eight (8) months after the effective date of the consent decree, the Permittee shall submit to IDEM and the IAPCS a report evaluating the efficiency of the operational measures implemented by the Permittee to reduce sulfur dioxide exceedances due to equipment malfunctions and recommending further preventative measures, if necessary. The report will also contain recommendations regarding the optimum characteristics for lime reagent used at the facility.

This report was submitted on September 12, 1993.

- (7) Section F, paragraph 6  
For a 3-year period following the effective date of this Consent Decree, the Permittee shall submit to IDEM and the ERMD an incident report for each instance of a boiler tube failure, which report shall state the air pollution emissions associated with such failure, describe the impact, if any, of the failure on the air pollution control equipment, and describe the procedures followed relative to such equipment during the failure. A boiler tube failure shall be defined as "a condition of a boiler tube which allows the escape of moisture in quantities which are detectable by measurement or visual observation." The report shall state the date and time the failure was detected, the Unit number, or the location of the failed tube(s) and the date and time corrective action was commenced by the Permittee. Such report shall be submitted within five (5) business days after the boiler tube failure. The Permittee shall submit to IDEM and the ERMD a follow-up report within twenty (20) business days after the boiler tube failure problem is corrected, which report shall describe the measures taken to repair or replace the tube(s) and any affected air pollution control equipment.

The reports were filed by the Permittee for a 3-year period following the effective date of the Consent Decree. This condition was satisfied.

- (8) Section F, paragraph 7  
If it has not done so within sixty (60) days prior to the effective date of this Consent Decree, the Permittee shall conduct performance specification tests of all continuous emissions monitors (CEMS) in accordance with 40 CFR, Appendix B and 326 IAC 3-6 and, within forty-five (45) days after such testing, submit the performance specification test reports for the CEMS to IDEM and the ERMD. If such performance specification tests were conducted within sixty (60) days prior to the effective date of this Consent Decree, the performance specification test reports for the CEMS shall be submitted by the Permittee to IDEM and the ERMD within thirty (30) days after the effective date of this Consent Decree.

The performance specification tests were performed by the Permittee on October 14-16, 1992. Future performance specification tests will be conducted pursuant to 40 CFR 60, Subpart Cb and Condition D.1.12.

- (9) Section F, paragraph 8  
Within thirty (30) days after the effective date of this Consent Decree, the Permittee shall submit to IDEM the IAPCS for their approval (which approvals shall not be unreasonably within or delayed) a quality assurance/quality control plan pursuant to 326 IAC 3-5 for each continuous emissions monitor and temperature monitor.

The quality assurance/quality control plan was submitted January 20, 1993 and this condition was satisfied.

- (10) Section I, paragraph 1  
The Permittee shall conduct a waste screening study to identify sources of sulfur and chloride in the waste stream, potential methods to eliminate or reduce such sources and the estimated cost of implementing such methods. The Permittee shall report the results of this study to IDEM and IAPCS with six (6) months after the effective date of the consent decree.

The study was conducted and the report was submitted on July 13, 1993.

Reason not incorporated: The above requirements will not be carried over to the Part 70 permit because the Permittee has completed these provisions of the Consent Decree. In addition, the references to the CO2 analyzer in the consent decree were deleted. This change was made because the limits on the pollutants that have continuous emissions monitors are corrected to percent O2 instead of CO2, therefore the Permittee will have an O2 analyzer.

## **Recommendation**

The staff recommends to the Commissioner that the Part 70 permit be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An administratively complete Part 70 permit application for the purposes of this review was received on May 31, 1996.

A notice of completeness letter was mailed to the source on February 19, 1997.

## **Potential to Emit**

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA."

This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential Emissions (tons/year)
PM	less than 100
PM-10	less than 100
SO <sub>2</sub>	greater than 250
VOC	less than 100
CO	greater than 250
NO <sub>x</sub>	greater than 250
HAPs (single)	greater than 10
HAPs (combined)	greater than 25

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

- (a) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of SO<sub>2</sub>, CO, and NO<sub>x</sub> are equal to or greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.
- (b) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of any single HAP is equal to or greater than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination HAPs is greater than or equal to twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.
- (c) Fugitive Emissions  
Since this type of operation is one of the twenty-eight (28) listed source categories under 326 IAC 2-2, the fugitive emissions are counted toward determination of PSD and Emission Offset applicability.

### Actual Emissions

The following table shows the actual emissions from the source. This information reflects the 2000 OAQ emission data.

Pollutant	Actual Emissions (tons/year)
PM	--
PM-10	10
SO <sub>2</sub>	108
VOC	8
CO	102
NO <sub>x</sub>	1,090

### Limited Potential to Emit

The table below summarizes the total potential to emit, reflecting all limits, of the significant emission units.

	Limited Potential to Emit (tons/year)						
Process/facility	PM	PM <sub>10</sub>	SO <sub>2</sub>	VOC	CO	NO <sub>x</sub>	HAPs
Combustor units 1, 2, and 3 (when burning municipal waste)	85.4	85.4	509.7	14.45	417.6	1430.4	40 CFR 60, Subpart Cb limits
Total	85.4	85.4	509.7	14.45	417.6	1430.4	--

## County Attainment Status

The source is located in Marion County.

Pollutant	Status
PM-10	attainment
SO <sub>2</sub>	attainment
NO <sub>2</sub>	attainment
Ozone	attainment
CO	attainment
Lead	attainment

Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Marion County has been designated as attainment or unclassifiable for ozone. The source is not located in the nonattainment area for CO.

## Federal Rule Applicability

- (a) This source is subject to the requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR 60.30b, Subpart Cb Emission Guidelines and Compliance Times for Large Municipal Waste Combustors that are constructed on or before September 20, 1994). The source is applicable to the emission limits, operation and training standards, monitoring, testing, record keeping, and reporting requirements contained in 40 CFR 60, Subpart Cb. These requirements are detailed in Section D.1 of the permit.
- (b) This source is subject to the requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR 60, Subpart E Standards of Performance for Incinerators). Compliance with the requirements of 40 CFR 60, Subpart Cb, satisfies the sources requirements for 40 CFR 60, Subpart E.
- (c) This source is subject to the requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR 60, Subpart Db Standards for Performance for Industrial - Commercial - Institutional Steam Generating Units). The facility is limited to an annual capacity factor of ten percent (10%) or less for natural gas use. Compliance with the particulate matter limit in 40 CFR 60, Subpart Cb, will satisfy the particulate matter requirement contained in 40 CFR 60, Subpart Db.
- (d) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) applicable to this source.

## State Rule Applicability - Entire Source

### 326 IAC 2-2 (Prevention of Significant Deterioration (PSD))

Pursuant to 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21, this source is a major PSD source and was issued a PSD permit on April 23, 1986.

### 326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting), because it has the potential to emit more than one hundred (100) tons per year of sulfur dioxide, carbon monoxide, and nitrogen oxides. Pursuant to this rule, the owner/operator of the source must annually submit an emission statement for the source. The annual statement must be received by April 15 of each year and contain the minimum requirement as specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8)(Emission Statement Operating Year).

**326 IAC 5-1 (Opacity)**

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of thirty percent (30%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

**State Rule Applicability - Individual Facilities**

**326 IAC 11-7 (Municipal Waste Combustor)**

The municipal waste combustor facility commenced construction before September 20, 1994, and has a combustion capacity greater than two hundred fifty (250) tons per day of municipal solid waste. Therefore, the requirements of 326 IAC 11-7 are applicable. The source is applicable to the emission limits, operation and training standards, monitoring, testing, record keeping, and reporting requirements contained in 326 IAC 11-7. These requirements are detailed in Section D.1 of the permit.

**326 IAC 11-7-9 Municipal Waste Combustor - Compliance Schedule**

- (a) Pursuant to 326 IAC 11-7-9, designated facilities shall be in compliance with this rule (326 IAC 11-7), except section 5 of this rule, according to one (1) of the following compliance schedules:
  - (1) Installation of air pollution control equipment is necessary to achieve compliance.
  - (2) The designated facility complies with the measurable and enforceable incremental steps of progress listed as follows:
    - (A) Submit a final control plan to do the department no later than thirty (30) days after the effective date of this rule. This date does not affect the date that a final control plan is required to be submitted to the U.S. EPA. (The sources final control plan was submitted to the IDEM-OAQ on January 4, 1999.)
    - (B) Award contracts for emission control systems or for process modifications, or issuance of orders for the purchase of component parts to accomplish emission control or process modifications by May 18, 1999. (A copy of the sources contract was submitted to IDEM-OAQ on May 18, 1999.)
    - (C) Initiate on-site construction or installation of emission control equipment or process change by November 16, 1999.  
  
This condition was satisfied on August 11, 1999.
    - (D) Complete on-site construction or installation of emission control equipment or process change by November 16, 2000.  
  
This condition was satisfied on October 21, 1999.

- (3) Designated facilities that are not in compliance February 17, 2000, must submit performance test results for dioxin/furan emissions that have been conducted during or after 1990.
- (4) The performance test shall be conducted according to the procedures in 40 CFR 60.38b, Subpart Cb, as amended by 60FR 45116 (August 25, 1997).
- (b) All designated facilities shall be in compliance with the training and certification requirements by September 1, 1999. The initial training requirements specified in 40 CFR 60.54b(f)(1), Subpart Eb, as amended by 60 FR 45124 (August 25, 1997), shall be completed by the date prior to the day when the person assumes responsibilities affecting municipal waste combustor unit operation.
- (c) Designated Facilities not in compliance shall cease operation.
- (d) Notwithstanding the requirements of this section, the designated facility shall comply with the compliance schedule in the federal plan until the state plan is approved by the U.S. EPA. The state plan was approved by the U.S. EPA on November 18, 1999.

326 IAC 6-1-2 (Particulate emissions limitations)

The source is located in Marion County which makes it applicable to particulate limitations in 326 IAC 6-1 (Nonattainment area limitations). 326 IAC 6-1-2 requires sources that do not have specific limits outlined in 326 IAC 6-1-2(b) through (g) to comply with a particulate limit of 0.03 grains per dry standard cubic feet. This source has a limit in Condition D.1.3(a) of 0.01 grains per dry standard cubic feet pursuant to 326 IAC 11-7-3 (23 milligrams per dry standard cubic meter) that is more stringent than 0.03 grains per dry standard cubic feet. Therefore, compliance with the particulate limit in 326 IAC 11-7-3 will satisfy the requirements of 326 IAC 6-1-2.

326 IAC 6-1-12 (Marion County particulate limitations)

The source does not have a specific particulate limit outlined in 326 IAC 6-1-12. Therefore, 326 IAC 6-1-12 does not apply.

326 IAC 4-2 (Incinerators)

Pursuant to 326 IAC 4-2, the incinerator shall:

- (a) consist of primary and secondary chambers or the equivalent;
- (b) be equipped with a primary burner unless burning wood products;
- (c) comply with 326 IAC 5-1 and 326 IAC 2;
- (d) be maintained properly as specified by the manufacturer and approved by the commissioner;
- (e) be operated according to the manufacturer's recommendations and only burn waste approved by the commissioner;
- (f) comply with other state and/or local rules or ordinances regarding installation and operation of incinerators;
- (g) be operated so that emissions of hazardous material including, but not limited to, viable pathogenic bacteria, dangerous chemicals or gases, or noxious odors are prevented;
- (h) not emit particulate matter in excess of:

- (1) incinerators with a maximum refuse-burning capacity of two hundred (200) or more pounds per hour: three-tenths (0.3) pounds of particulate matter per one thousand (1,000) pounds of dry exhaust gas at standard conditions corrected to fifty percent (50%) excess air.
- (i) not create a nuisance or a fire hazard

### Consent Decree Requirements

There are additional requirements specified from a Consent Decree filed January 12, 1993, Cause number 49F12-9110-OV-2155 that are carried over into the Part 70 permit. The conditions not carried over from the Consent Decree were either satisfied or were not required by the consent decree to be incorporated into the Part 70 permit.

### Compliance Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The compliance monitoring requirements applicable to this source are as follows:

The three (3) municipal waste combustors have applicable compliance monitoring and testing conditions as follows:

- (a) **Particulate** - Following the date that the initial performance test for particulate matter is completed or is required to be completed under 40 CFR 60.8 of subpart A of this part for an affected facility, the owner or operator shall conduct a performance test for particulate matter on an annual basis (no more than 12 calendar months following the previous performance test).
- (b) **Opacity** - The owner or operator of an affected facility shall install, calibrate, maintain, and operate a continuous opacity monitoring system for measuring opacity and shall follow the methods and procedures specified. Following the date that the initial performance test for opacity is completed or is required to be completed under 40 CFR 60.8 of subpart A for an affected facility, the owner or operator shall conduct a performance test for opacity on an annual basis (no more than 12 calendar months following the previous performance test) using the test method specified in paragraph (c)(6) of this section.



- (c) **Cadmium and Lead** - Following the date of the initial performance test or the date on which the initial performance test is required to be completed under 40 CFR 60.8 of subpart A , the owner or operator of an affected facility shall conduct a performance test for compliance with the emission limits for cadmium and lead on an annual basis (no more than 12 calendar months following the previous performance test).
- (d) **Mercury** - Following the date that the initial performance test for mercury is completed or is required to be completed under 40 CFR 60.8 of subpart A , the owner or operator of an affected facility shall conduct a performance test for mercury emissions on a annual basis (no more than 12 calendar months from the previous performance test).
- (e) **Sulfur Dioxide** - Following the date that the initial performance test for sulfur dioxide is completed or is required to be completed under 40 CFR 60.8 of subpart A of this part, compliance with the sulfur dioxide emission limit shall be determined based on the 24-hour daily geometric average of the hourly arithmetic average emission concentrations using continuous emission monitoring system outlet data if compliance is based on an emission concentration, or continuous emission monitoring system inlet and outlet data if compliance is based on a percent reduction. Quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with procedure 1 in appendix F of 40 CFR 60.
- (f) **Hydrogen Chloride** - Following the date that the initial performance test for hydrogen chloride is completed or is required to be completed under 40 CFR 60.8 of subpart A, the owner or operator of an affected facility shall conduct a performance test for hydrogen chloride emissions on an annual basis (no more than 12 calendar months following the previous performance test).
- (g) **Dioxin/Furan** - Following the date that the initial performance test for dioxins/furans is completed or is required to be completed under 40 CFR 60.8 of subpart A, the owner or operator of an affected facility shall conduct performance tests for dioxin/furan emissions as specified, according to one of the following schedules: (i) For affected facilities, performance tests shall be conducted on an annual basis (no more than 12 calendar months following the previous performance test.) (ii) Where all performance tests over a 2-year period indicate that dioxin/furan emissions are less than or equal to 15 nanograms per dry standard cubic meter (total mass) for all affected facilities located within a municipal waste combustor plant, the owner or operator of the municipal waste combustor plant may elect to conduct annual performance tests for one affected facility (i.e., unit) per year at the municipal waste combustor plant. At a minimum , a performance test for dioxin/furan emissions shall be conducted annually (no more than 12 months following the previous performance test) for one affected facility at the municipal waste combustor plant. Each year a different affected facility at the municipal waste combustor plant shall be tested, and the affected facilities at the plant shall be tested in sequence.
- (h) **Nitrogen Oxides** - Following the date that the initial performance test for nitrogen oxides is completed or is required to be completed under 40 CFR 60.8 of subpart A of this part, compliance with the emission limit for nitrogen oxides required under 40 CFR 60.52b(d) shall be determined based on the 24-hour daily arithmetic average of the hourly emission concentrations using continuous emission monitoring system outlet data. Quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with procedure 1 in appendix F of 40 CFR 60.

- (i) **Carbon Monoxide** - Compliance with the carbon monoxide emission limits in 40 CFR 60.53b(a) shall be determined using a 4-hour block arithmetic average. The owner or operator of an affected facility shall install, calibrate, maintain, and operate a continuous emission monitoring system for measuring carbon monoxide at the combustor outlet and record the output of the system and shall follow the procedures and methods specified.
- (j) **Fugitive Ash** - Following the date that the initial performance test for fugitive ash emissions is completed under 40 CFR 60.8 of subpart A of this part for an affected facility, the owner or operator shall conduct a performance test for fugitive ash emissions on an annual basis (no more than 12 calendar months following the previous performance test).
- (k) To determine compliance with the maximum particulate matter control device temperature requirements under 40 CFR 60.53b(c), the owner or operator of an affected facility shall install, calibrate, maintain, and operate a device for measuring on a continuous basis the temperature of the flue gas stream at the inlet to each particulate matter control device utilized by the affected facility. Temperature shall be calculated in 4-hour block arithmetic averages. For each particulate matter control device employed at the affected facility, the maximum demonstrated particulate matter control device temperature shall be determined during the initial performance test for dioxins/furans and each subsequent performance test during which compliance with the dioxin/furan emission limit specified in 40 CFR 60.52b(c) is achieved. The maximum demonstrated particulate matter control device temperature shall be the highest 4-hour arithmetic average temperature achieved at the particulate matter control device inlet during four consecutive hours during the most recent test during which compliance with the dioxin/furan limit was achieved. Quarterly accuracy determinations and daily calibration drift tests for the carbon monoxide continuous emission monitoring system shall be performed in accordance with procedure 1 in appendix F of 40 CFR 60.
- (l) The Permittee shall record the total static pressure drop across the baghouse used in conjunction with the dry activated carbon storage silo, at least once while filling the silo. When for any one reading, the pressure drop across the baghouse is outside the normal range of 3.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.
- (m) An inspection shall be performed each calendar quarter of all bags controlling the carbon storage silo operation when venting to the atmosphere. All defective bags shall be replaced.

These monitoring conditions are necessary to ensure compliance with the guidelines outlined in 40 CFR 60, Subpart Cb, 326 IAC 11-7 (Municipal Waste Combustors), and 326 IAC 2-7.

The Lime Storage Silo has applicable compliance monitoring conditions as specified below:

- (a) Once per shift visible emission notations of the transfer points exhaust shall be performed during normal daylight operations during the transfer of lime to the storage silo and during the removal of lime from the storage silo to an alternate storage area. A trained employee shall record whether emissions are normal or abnormal. For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not

counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports shall be considered a violation of this permit.

- (b) The Permittee shall record the total static pressure drop across the baghouse during the transfer of lime to the storage silo and during the removal of lime from the storage silo to an alternate storage area. When for any one reading, the pressure drop across the baghouse is outside the normal range of 2.0 and 5.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.
- (c) An inspection shall be performed each calendar quarter of all bags controlling the lime silo. All defective bags shall be replaced.

These monitoring conditions are necessary to ensure compliance with 326 IAC 6-1-2 and 326 IAC 2-7.

## **Conclusion**

The operation of this solid waste combustion facility shall be subject to the conditions of the attached proposed Part 70 Permit No. T097-5985-00123.

**Subpart Ca [Reserved]**

**Subpart Cb—Emissions Guidelines and Compliance Times for Large Municipal Waste Combustors That are Constructed on or Before September 20, 1994**

SOURCE: 60 FR 65415, Dec. 19, 1995, unless otherwise noted.

**§ 60.30b Scope.**

This subpart contains emission guidelines and compliance schedules for the control of certain designated pollutants from certain municipal waste combustors in accordance with section 111(d) and section 129 of the Clean Air Act and subpart B of this part. The provisions in these emission guidelines supersede the provisions of § 60.24(f) of subpart B of this part.

**§ 60.31b Definitions.**

Terms used but not defined in this subpart have the meaning given them in the Clean Air Act and subparts A, B, and Eb of this part.

*Municipal waste combustor plant* means one or more designated facilities (as defined in § 60.32b) at the same location.

[60 FR 65415, Dec. 19, 1995, as amended at 62 FR 45119, 45125, Aug. 25, 1997]

**§ 60.32b Designated facilities.**

(a) The designated facility to which these guidelines apply is each municipal waste combustor unit with a combustion capacity greater than 250 tons per day of municipal solid waste for which construction was commenced on or before September 20, 1994.

(b) Any municipal waste combustion unit that is capable of combusting more than 250 tons per day of municipal solid waste and is subject to a federally enforceable permit limiting the maximum amount of municipal solid waste that may be combusted in the unit to less than or equal to 11 tons per day is not subject to this subpart if the owner or operator:

(1) Notifies the EPA Administrator of an exemption claim,

(2) Provides a copy of the federally enforceable permit that limits the firing of municipal solid waste to less than 11 tons per day, and

(3) Keeps records of the amount of municipal solid waste fired on a daily basis.

(c) Physical or operational changes made to an existing municipal waste combustor unit primarily for the purpose of complying with emission guidelines under this subpart are not considered in determining whether the unit is a modified or reconstructed facility under subpart Ea or subpart Eb of this part.

(d) A qualifying small power production facility, as defined in section 3(17)(C) of the Federal Power Act (16 U.S.C. 796(17)(C)), that burns homogeneous waste (such as automotive tires or used oil, but not including refuse-derived fuel) for the production of electric energy is not subject to this subpart if the owner or operator of the facility notifies the EPA Administrator of this exemption and provides data documenting that the facility qualifies for this exemption.

(e) A qualifying cogeneration facility, as defined in section 3(18)(B) of the Federal Power Act (16 U.S.C. 796(18)(B)), that burns homogeneous waste (such as automotive tires or used oil, but not including refuse-derived fuel) for the production of electric energy and steam or forms of useful energy (such as heat) that are used for industrial, commercial, heating, or cooling purposes, is not subject to this subpart if the owner or operator of the facility notifies the EPA Administrator of this exemption and provides data documenting that the facility qualifies for this exemption.

(f) Any unit combusting a single-item waste stream of tires is not subject to this subpart if the owner or operator of the unit:

(1) Notifies the EPA Administrator of an exemption claim, and

(2) Provides data documenting that the unit qualifies for this exemption.

(g) Any unit required to have a permit under section 3005 of the Solid Waste Disposal Act is not subject to this subpart.

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(h) Any materials recovery facility (including primary or secondary smelters) that combusts waste for the primary purpose of recovering metals is not subject to this subpart.

(i) Any cofired combustor, as defined under § 60.51b of subpart Eb of this part, that meets the capacity specifications in paragraph (a) of this section is not subject to this subpart if the owner or operator of the cofired combustor:

(1) Notifies the EPA Administrator of an exemption claim,

(2) Provides a copy of the federally enforceable permit (specified in the definition of cofired combustor in this section), and

(3) Keeps a record on a calendar quarter basis of the weight of municipal solid waste combusted at the cofired combustor and the weight of all other fuels combusted at the cofired combustor.

(j) Air curtain incinerators, as defined under § 60.51b of subpart Eb of this part, that meet the capacity specifications in paragraph (a) of this section, and that combust a fuel stream composed of 100 percent yard waste are exempt from all provisions of this subpart except the opacity standard under § 60.37b, the testing procedures under § 60.38b, and the reporting and record-keeping provisions under § 60.39b.

(k) Air curtain incinerators that meet the capacity specifications in paragraph (a) of this section and that combust municipal solid waste other than yard waste are subject to all provisions of this subpart.

(l) Pyrolysis/combustion units that are an integrated part of a plastics/rubber recycling unit (as defined in § 60.51b) are not subject to this subpart if the owner or operator of the plastics/rubber recycling unit keeps records of the weight of plastics, rubber, and/or rubber tires processed on a calendar quarter basis; the weight of chemical plant feedstocks and petroleum refinery feedstocks produced and marketed on a calendar quarter basis; and the name and address of the purchaser of the feedstocks. The combustion of gasoline, diesel fuel, jet fuel, fuel oils, residual oil, refinery gas, petroleum coke, liquified petroleum gas, propane, or butane produced by chemical plants or petroleum refineries that use feed-

stocks produced by plastics/rubber recycling units are not subject to this subpart.

(m) Cement kilns firing municipal solid waste are not subject to this subpart.

[60 FR 65415, Dec. 19, 1995, as amended at 62 FR 45119, 45125, Aug. 25, 1997]

### **§ 60.33b Emission guidelines for municipal waste combustor metals, acid gases, organics, and nitrogen oxides.**

(a) The emission limits for municipal waste combustor metals are specified in paragraphs (a)(1) through (a)(3) of this section.

(1) For approval, a State plan shall include emission limits for particulate matter and opacity at least as protective as the emission limits for particulate matter and opacity specified in paragraphs (a)(1)(i) through (a)(1)(iii) of this section.

(i) The emission limit for particulate matter contained in the gases discharged to the atmosphere from a designated facility is 27 milligrams per dry standard cubic meter, corrected to 7 percent oxygen.

(ii) [Reserved]

(iii) The emission limit for opacity exhibited by the gases discharged to the atmosphere from a designated facility is 10 percent (6-minute average).

(2) For approval, a State plan shall include emission limits for cadmium and lead at least as protective as the emission limits for cadmium and lead specified in paragraphs (a)(2)(i) through (a)(2)(iv) of this section.

(i) The emission limit for cadmium contained in the gases discharged to the atmosphere from a designated facility is 0.040 milligrams per dry standard cubic meter, corrected to 7 percent oxygen.

(ii) [Reserved]

(iii) The emission limit for lead contained in the gases discharged to the atmosphere from a designated facility is 0.49 milligrams per dry standard cubic meter, corrected to 7 percent oxygen.

(iv) [Reserved]

(3) For approval, a State plan shall include emission limits for mercury at least as protective as the emission limits specified in this paragraph. The

emission limit for mercury contained in the gases discharged to the atmosphere from a designated facility is 0.080 milligrams per dry standard cubic meter or 15 percent of the potential mercury emission concentration (85-percent reduction by weight), corrected to 7 percent oxygen, whichever is less stringent.

(4) For approval, a State plan shall be submitted by August 25, 1998 and shall include an emission limit for lead at least as protective as the emission limit for lead specified in this paragraph. The emission limit for lead contained in the gases discharged to the atmosphere from a designated facility is 0.44 milligrams per dry standard cubic meter, corrected to 7 percent oxygen.

(b) The emission limits for municipal waste combustor acid gases, expressed as sulfur dioxide and hydrogen chloride, are specified in paragraphs (b)(1) and (b)(2) of this section.

(1) For approval, a State plan shall include emission limits for sulfur dioxide at least as protective as the emission limits for sulfur dioxide specified in paragraphs (b)(1)(i) and (b)(1)(ii) of this section.

(i) The emission limit for sulfur dioxide contained in the gases discharged to the atmosphere from a designated facility is 31 parts per million by volume or 25 percent of the potential sulfur dioxide emission concentration (75-percent reduction by weight or volume), corrected to 7 percent oxygen (dry basis), whichever is less stringent. Compliance with this emission limit is based on a 24-hour daily geometric mean.

(ii) [Reserved]

(2) For approval, a State plan shall include emission limits for hydrogen chloride at least as protective as the emission limits for hydrogen chloride specified in paragraphs (b)(2)(i) and (b)(2)(ii) of this section.

(i) The emission limit for hydrogen chloride contained in the gases discharged to the atmosphere from a designated facility is 31 parts per million by volume or 5 percent of the potential hydrogen chloride emission concentration (95-percent reduction by weight or volume), corrected to 7 percent oxygen (dry basis), whichever is less stringent.

(ii) [Reserved]

(3) For approval, a State plan shall be submitted by August 25, 1998 and shall include emission limits for sulfur dioxide and hydrogen chloride at least as protective as the emission limits specified in paragraphs (b)(3)(i) and (b)(3)(ii) of this section.

(i) The emission limit for sulfur dioxide contained in the gases discharged to the atmosphere from a designated facility is 29 parts per million by volume or 25 percent of the potential sulfur dioxide emission concentration (75-percent reduction by weight or volume), corrected to 7 percent oxygen (dry basis), whichever is less stringent. Compliance with this emission limit is based on a 24-hour daily geometric mean.

(ii) The emission limit for hydrogen chloride contained in the gases discharged to the atmosphere from a designated facility is 29 parts per million by volume or 5 percent of the potential hydrogen chloride emission concentration (95-percent reduction by weight or volume), corrected to 7 percent oxygen (dry basis), whichever is less stringent.

(c) The emission limits for municipal waste combustor organics, expressed as total mass dioxins/furans, are specified in paragraphs (c)(1) and (c)(2) of this section.

(1) For approval, a State plan shall include an emission limit for dioxins/furans contained in the gases discharged to the atmosphere from a designated facility at least as protective as the emission limit for dioxins/furans specified in either paragraph (c)(1)(i) or (c)(1)(ii) of this section, as applicable.

(i) The emission limit for designated facilities that employ an electrostatic precipitator-based emission control system is 60 nanograms per dry standard cubic meter (total mass), corrected to 7 percent oxygen.

(ii) The emission limit for designated facilities that do not employ an electrostatic precipitator-based emission control system is 30 nanograms per dry standard cubic meter (total mass), corrected to 7 percent oxygen.

(2) [Reserved]

(d) For approval, a State plan shall include emission limits for nitrogen oxides at least as protective as the emission limits listed in table 1 of this

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subpart for designated facilities. Table 1 provides emission limits for the nitrogen oxides concentration level for each type of designated facility.

TABLE 1—NITROGEN OXIDES GUIDELINES FOR DESIGNATED FACILITIES

Municipal waste combustor technology	Nitrogen oxides emission limit (parts per million by volume) <sup>a</sup>
Mass burn waterwall .....	205
Mass burn rotary waterwall .....	250
Refuse-derived fuel combustor .....	250
Fluidized bed combustor .....	240
Mass burn refractory combustors .....	no limit

<sup>a</sup> Corrected to 7 percent oxygen, dry basis.

(1) A State plan may allow nitrogen oxides emissions averaging as specified in paragraphs (d)(1)(i) through (d)(1)(v) of this section.

(i) The owner or operator of a municipal waste combustor plant may elect to implement a nitrogen oxides emissions averaging plan for the designated facilities that are located at that plant and that are subject to subpart Cb, except as specified in paragraphs (d)(1)(i)(A) and (d)(1)(i)(B) of this section.

(A) Municipal waste combustor units subject to subpart Ea or Eb cannot be included in the emissions averaging plan.

(B) Mass burn refractory municipal waste combustor units and other municipal waste combustor technologies not listed in paragraph (d)(1)(iii) of this section may not be included in the emissions averaging plan.

(ii) The designated facilities included in the nitrogen oxides emissions averaging plan must be identified in the initial compliance report specified in § 60.59b(f) or in the annual report specified in § 60.59b(g), as applicable, prior to implementing the averaging plan. The designated facilities being included in the averaging plan may be redesignated each calendar year. Partial year redesignation is allowable with State approval.

(iii) To implement the emissions averaging plan, the average daily (24-hour) nitrogen oxides emission concentration level for gases discharged from the designated facilities being included in the emissions averaging plan

must be no greater than the levels specified in table 2 of this subpart. Table 2 provides emission limits for the nitrogen oxides concentration level for each type of designated facility.

TABLE 2—NITROGEN OXIDES LIMITS FOR EXISTING DESIGNATED FACILITIES INCLUDED IN AN EMISSIONS AVERAGING PLAN AT A MUNICIPAL WASTE COMBUSTOR PLANT<sup>a</sup>

Municipal waste combustor technology	Nitrogen oxides emission limit (parts per million by volume) <sup>b</sup>
Mass burn waterwall .....	185
Mass burn rotary waterwall .....	220
Refuse-derived fuel combustor .....	230
Fluidized bed combustor .....	220

<sup>a</sup> Mass burn refractory municipal waste combustors and other MWC technologies not listed above may not be included in an emissions averaging plan.

<sup>b</sup> Corrected to 7 percent oxygen, dry basis.

(iv) Under the emissions averaging plan, the average daily nitrogen oxides emissions specified in paragraph (d)(1)(iii) of this section shall be calculated using equation (1). Designated facilities that are offline shall not be included in calculating the average daily nitrogen oxides emission level.

$$NO_{X\ 24-hr} = \frac{\sum_{i=1}^h (NO_{X_i})(S_i)}{\sum_{i=1}^h (S_i)} \quad (1)$$

where:

$NO_{X\ 24-hr}$ =24-hr daily average nitrogen oxides emission concentration level for the emissions averaging plan (parts per million by volume corrected to 7 percent oxygen).

$NO_{X\ i-hr}$ =24-hr daily average nitrogen oxides emission concentration level for designated facility i (parts per million by volume, corrected to 7 percent oxygen), calculated according to the procedures in § 60.58b(h) of this subpart.

$S_i$ =maximum demonstrated municipal waste combustor unit load for designated facility i (pounds per hour steam or feedwater flow as determined in the most recent dioxin/furan performance test).

h=total number of designated facilities being included in the daily emissions average.

(v) For any day in which any designated facility included in the emissions averaging plan is offline, the owner or operator of the municipal waste combustor plant must demonstrate compliance according to either paragraph (d)(1)(v)(A) of this section or both paragraphs (d)(1)(v)(B) and (d)(1)(v)(C) of this section.

(A) Compliance with the applicable limits specified in table 2 of this subpart shall be demonstrated using the averaging procedure specified in paragraph (d)(1)(iv) of this section for the designated facilities that are online.

(B) For each of the designated facilities included in the emissions averaging plan, the nitrogen oxides emissions on a daily average basis shall be calculated and shall be equal to or less than the maximum daily nitrogen oxides emission level achieved by that designated facility on any of the days during which the emissions averaging plan was achieved with all designated facilities online during the most recent calendar quarter. The requirements of this paragraph do not apply during the first quarter of operation under the emissions averaging plan.

(C) The average nitrogen oxides emissions (kilograms per day) calculated according to paragraph (d)(1)(v)(C)(2) of this section shall not exceed the average nitrogen oxides emissions (kilograms per day) calculated according to paragraph (d)(1)(v)(C)(1) of this section.

(1) For all days during which the emissions averaging plan was implemented and achieved and during which all designated facilities were online, the average nitrogen oxides emissions shall be calculated. The average nitrogen oxides emissions (kilograms per day) shall be calculated on a calendar year basis according to paragraphs (d)(1)(v)(C)(1)(i) through (d)(1)(v)(C)(1)(iii) of this section.

(i) For each designated facility included in the emissions averaging plan, the daily amount of nitrogen oxides emitted (kilograms per day) shall be calculated based on the hourly nitrogen oxides data required under § 60.38b(a) and specified under § 60.58b(h)(5) of subpart Eb of this part,

the flue gas flow rate determined using table 19-1 of EPA Reference Method 19 or a State-approved method, and the hourly average steam or feedwater flow rate.

(ii) The daily total nitrogen oxides emissions shall be calculated as the sum of the daily nitrogen oxides emissions from each designated facility calculated under paragraph (d)(1)(v)(C)(1)(i) of this section.

(iii) The average nitrogen oxides emissions (kilograms per day) on a calendar year basis shall be calculated as the sum of all daily total nitrogen oxides emissions calculated under paragraph (d)(1)(v)(C)(1)(ii) of this section divided by the number of calendar days for which a daily total was calculated.

(2) For all days during which one or more of the designated facilities under the emissions averaging plan was offline, the average nitrogen oxides emissions shall be calculated. The average nitrogen oxides emissions (kilograms per day) shall be calculated on a calendar year basis according to paragraphs (d)(1)(v)(C)(2)(i) through (d)(1)(v)(C)(2)(iii) of this section.

(i) For each designated facility included in the emissions averaging plan, the daily amount of nitrogen oxides emitted (kilograms per day) shall be calculated based on the hourly nitrogen oxides data required under § 60.38b(a) and specified under § 60.58b(h)(5) of subpart Eb of this part, the flue gas flow rate determined using table 19-1 of EPA Reference Method 19 or a State-approved method, and the hourly average steam or feedwater flow rate.

(ii) The daily total nitrogen oxides emissions shall be calculated as the sum of the daily nitrogen oxides emissions from each designated facility calculated under paragraph (d)(1)(v)(C)(2)(i) of this section.

(iii) The average nitrogen oxides emissions (kilograms per day) on a calendar year basis shall be calculated as the sum of all daily total nitrogen oxides emissions calculated under paragraph (d)(1)(v)(C)(2)(ii) of this section divided by the number of calendar days for which a daily total was calculated.

(2) A State plan may establish a program to allow owners or operators of municipal waste combustor plants to



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engage in trading of nitrogen oxides emission credits. A trading program must be approved by the Administrator before implementation.

(3) For approval, a State plan shall be submitted by August 25, 1998 and shall include emission limits for nitrogen oxides from fluidized bed combustors at least as protective as the emission limits listed in paragraphs (d)(3)(i) and (d)(3)(ii) of this section.

(i) The emission limit for nitrogen oxides contained in the gases discharged to the atmosphere from a designated facility that is a fluidized bed combustor is 180 parts per million by volume, corrected to 7 percent oxygen.

(ii) If a State plan allows nitrogen oxides emissions averaging as specified in paragraphs (d)(1)(i) through (d)(1)(v) of this section, the emission limit for

nitrogen oxides contained in the gases discharged to the atmosphere from a designated facility that is a fluidized bed combustor is 165 parts per million by volume, corrected to 7 percent oxygen.

[60 FR 65415, Dec. 19, 1995, as amended at 62 FR 45119, 45125, Aug. 25, 1997]

### § 60.34b Emission guidelines for municipal waste combustor operating practices.

(a) For approval, a State plan shall include emission limits for carbon monoxide at least as protective as the emission limits for carbon monoxide listed in table 3 of this subpart. Table 3 provides emission limits for the carbon monoxide concentration level for each type of designated facility.

TABLE 3.—MUNICIPAL WASTE COMBUSTOR OPERATING GUIDELINES

Municipal waste combustor technology	Carbon monoxide emissions level (parts per million by volume) <sup>a</sup>	Averaging time (hrs) <sup>b</sup>
Mass burn waterwall .....	100	4
Mass burn refractory .....	100	4
Mass burn rotary refractory .....	100	24
Mass burn rotary waterwall .....	250	24
Modular starved air .....	50	4
Modular excess air .....	50	4
Refuse-derived fuel stoker .....	200	24
Buddling fluidized bed combustor .....	100	4
Circulating fluidized bed combustor .....	100	4
Pulverized coal/refuse-derived fuel mixed fuel-fired combustor .....	150	4
Spreader stoker coal/refuse-derived fuel mixed fuel-fired combustor .....	200	24

<sup>a</sup> Measured at the combustor outlet in conjunction with a measurement of oxygen concentration, corrected to 7 percent oxygen, dry basis. Calculated as an arithmetic average.

<sup>b</sup> Averaging times are 4-hour or 24-hour block averages.

(b) For approval, a State plan shall include requirements for municipal waste combustor operating practices at least as protective as those requirements listed in § 60.53b(b) and (c) of subpart Eb of this part.

[60 FR 65415, Dec. 19, 1995, as amended at 62 FR 45120, 45125, Aug. 25, 1997]

### § 60.35b Emission guidelines for municipal waste combustor operator training and certification.

For approval, a State plan shall include requirements for designated facilities for municipal waste combustor operator training and certification at least as protective as those requirements listed in § 60.54b of subpart Eb of

this part. The State plan shall require compliance with these requirements according to the schedule specified in § 60.39b(c)(4).

[60 FR 65415, Dec. 19, 1995, as amended at 62 FR 45120, Aug. 25, 1997]

### § 60.36b Emission guidelines for municipal waste combustor fugitive ash emissions.

For approval, a State plan shall include requirements for municipal waste combustor fugitive ash emissions at least as protective as those requirements listed in § 60.55b of subpart Eb of this part.

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### § 60.37b Emission guidelines for air curtain incinerators.

For approval, a State plan shall include emission limits for opacity for air curtain incinerators at least as protective as those listed in § 60.56b of subpart Eb of this part.

### § 60.38b Compliance and performance testing.

(a) For approval, a State plan shall include the performance testing methods listed in § 60.58b of subpart Eb of this part, as applicable, except as provided for under § 60.24(b)(2) of subpart B of this part and paragraphs (b) and (c) of this section.

(b) For approval, a State plan shall include for designated facilities the alternative performance testing schedule for dioxins/furans specified in § 60.58b(g)(5)(iii) of subpart Eb of this part, as applicable, for those designated facilities that achieve a dioxin/furan emission level less than or equal to 15 nanograms per dry standard cubic meter total mass, corrected to 7 percent oxygen.

(c) [Reserved]

[60 FR 65415, Dec. 19, 1995, as amended at 62 FR 45120, Aug. 25, 1997]

### § 60.39b Reporting and recordkeeping guidelines and compliance schedules.

(a) For approval, a State plan shall include the reporting and recordkeeping provisions listed in § 60.59b of subpart Eb of this part, as applicable, except for the siting requirements under § 60.59b(a), (b)(5), and (d)(11) of subpart Eb of this part.

(b) Not later than December 19, 1996, each State in which a designated facility is located shall submit to the EPA Administrator a plan to implement and enforce all provisions of this subpart except those specified under § 60.33b (a)(4), (b)(3), and (d)(3). The compliance schedule specified in this paragraph is in accordance with section 129(b)(2) of the Act and supersedes the compliance schedule provided in § 60.23(a)(1) of subpart B of this part.

(c) For approval, a State plan shall include the compliance schedules specified in paragraphs (c)(1) through (c)(5) of this section.

(1) A State plan shall allow designated facilities to comply with all requirements of a State plan (or close) within 1 year after approval of the State plan, except as provided by paragraph (c)(1)(i) and (c)(1)(ii) of this section.

(i) A State plan that allows designated facilities more than 1 year but less than 3 years following the date of issuance of a revised construction or operation permit, if a permit modification is required, or more than 1 year but less than 3 years following approval of the State plan, if a permit modification is not required, shall include measurable and enforceable incremental steps of progress toward compliance. Suggested measurable and enforceable activities are specified in paragraphs (c)(1)(i)(A) through (c)(1)(i)(J) of this section.

(A) Date for obtaining services of an architectural and engineering firm regarding the air pollution control device(s);

(B) Date for obtaining design drawings of the air pollution control device(s);

(C) Date for submittal of permit modifications, if necessary;

(D) Date for submittal of the final control plan to the Administrator. [§ 60.21 (h)(1) of subpart B of this part.];

(E) Date for ordering the air pollution control device(s);

(F) Date for obtaining the major components of the air pollution control device(s);

(G) Date for initiation of site preparation for installation of the air pollution control device(s);

(H) Date for initiation of installation of the air pollution control device(s);

(I) Date for initial startup of the air pollution control device(s); and

(J) Date for initial performance test(s) of the air pollution control device(s).

(ii) A State plan that allows designated facilities more than 1 year but up to 3 years after State plan approval to close shall require a closure agreement. The closure agreement must include the date of plant closure.

(2) If the State plan requirements for a designated facility include a compliance schedule longer than 1 year after

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approval of the State plan in accordance with paragraph (c)(1)(i) or (c)(1)(ii) of this section, the State plan submittal (for approval) shall include performance test results for dioxin/furan emissions for each designated facility that has a compliance schedule longer than 1 year following the approval of the State plan, and the performance test results shall have been conducted during or after 1990. The performance test shall be conducted according to the procedures in § 60.38b.

(3) [Reserved]

(4) A State plan shall require compliance with the municipal waste combustor operator training and certification requirements under § 60.35b according to the schedule specified in paragraphs (c)(4)(i) through (c)(4)(iii) of this section.

(i) [Reserved]

(ii) For designated facilities, the State plan shall require compliance with the municipal waste combustor operator training and certification requirements specified under § 60.54b (a) through (c) of subpart Eb of this part by the date 6 months after the date of startup or 12 months after State plan approval, whichever is later.

(iii) For designated facilities, the State plan shall require compliance with the requirements specified in § 60.54b (d), (f), and (g) of subpart Eb of this part no later than 6 months after startup or 12 months after State plan approval, whichever is later.

(A) The requirement specified in § 60.54b(d) of subpart Eb of this part does not apply to chief facility operators, shift supervisors, and control room operators who have obtained full certification from the American Society of Mechanical Engineers on or before the date of State plan approval.

(B) The owner or operator of a designated facility may request that the EPA Administrator waive the requirement specified in § 60.54b(d) of subpart Eb of this part for chief facility operators, shift supervisors, and control room operators who have obtained provisional certification from the American Society of Mechanical Engineers on or before the date of State plan approval.

(C) The initial training requirements specified in § 60.54b(f)(1) of subpart Eb of this part shall be completed no later than the date specified in paragraph (c)(4)(iii)(C)(1), (c)(4)(iii)(C)(2), or (c)(4)(iii)(C)(3), of this section whichever is later.

(1) The date 6 months after the date of startup of the affected facility;

(2) Twelve months after State plan approval; or

(3) The date prior to the day when the person assumes responsibilities affecting municipal waste combustor unit operation.

(5) A State plan shall require all designated facilities for which construction, modification, or reconstruction is commenced after June 26, 1987 to comply with the emission limit for mercury specified in § 60.33b(a)(3) and the emission limit for dioxins/furans specified in § 60.33b(c)(1) within 1 year following issuance of a revised construction or operation permit, if a permit modification is required, or within 1 year following approval of the State plan, whichever is later.

(d) In the event no plan for implementing the emission guidelines is approved by EPA, all designated facilities meeting the applicability requirements under § 60.32b shall be in compliance with all of the guidelines, except those specified under § 60.33b (a)(4), (b)(3), and (d)(3), no later than December 19, 2000.

(e) Not later than August 25, 1998, each State in which a designated facility is operating shall submit to the EPA Administrator a plan to implement and enforce all provisions of this subpart specified in § 60.33b (a)(4), (b)(3), and (d)(3).

(f) In the event no plan for implementing the emission guidelines is approved by EPA, all designated facilities meeting the applicability requirements under § 60.32b shall be in compliance with all of the guidelines, including those specified under § 60.33b (a)(4), (b)(3), and (d)(3), no later than August 26, 2002.

[60 FR 65415, Dec. 19, 1995, as amended at 62 FR 45120, 45125, Aug. 25, 1997]

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have or have not been performed as specified.

(2) The data used to show compliance was or was not obtained in accordance with approved methods and procedures of this part and is representative of plant performance.

(3) The minimum data requirements have or have not been met; or, the minimum data requirements have not been met for errors that were unavoidable.

(4) Compliance with the standards has or has not been achieved during the reporting period.

(h) For the purposes of the reports required under § 60.7, periods of excess emissions are defined as all 6-minute periods during which the average opacity exceeds the applicable opacity standards under § 60.42a(b). Opacity levels in excess of the applicable opacity standard and the date of such excesses are to be submitted to the Administrator each calendar quarter.

(i) The owner or operator of an affected facility shall submit the written reports required under this section and subpart A to the Administrator semi-annually for each six-month period. All semiannual reports shall be post-marked by the 30th day following the end of each six-month period.

(j) The owner or operator of an affected facility may submit electronic quarterly reports for SO<sub>2</sub> and/or NO<sub>x</sub> and/or opacity in lieu of submitting the written reports required under paragraphs (b) and (h) of this section. The format of each quarterly electronic report shall be coordinated with the permitting authority. The electronic report(s) shall be submitted no later than 30 days after the end of the calendar quarter and shall be accompanied by a certification statement from the owner or operator, indicating whether compliance with the applicable emission standards and minimum data requirements of this subpart was achieved during the reporting period. Before submitting reports in the electronic format, the owner or operator shall coordinate with the permitting authority to obtain their agreement to submit reports in this alternative format.

[44 FR 33613, June 11, 1979, as amended at 63 FR 49454, Sept. 16, 1998; 64 FR 7464, Feb. 12, 1999]

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### Subpart Db—Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units

#### § 60.40b Applicability and delegation of authority.

(a) The affected facility to which this subpart applies is each steam generating unit that commences construction, modification, or reconstruction after June 19, 1984, and that has a heat input capacity from fuels combusted in the steam generating unit of greater than 29 MW (100 million Btu/hour).

(b) Any affected facility meeting the applicability requirements under paragraph (a) of this section and commencing construction, modification, or reconstruction after June 19, 1984, but on or before June 19, 1986, is subject to the following standards:

(1) Coal-fired affected facilities having a heat input capacity between 29 and 73 MW (100 and 250 million Btu/hour), inclusive, are subject to the particulate matter and nitrogen oxides standards under this subpart.

(2) Coal-fired affected facilities having a heat input capacity greater than 73 MW (250 million Btu/hour) and meeting the applicability requirements under subpart D (Standards of performance for fossil-fuel-fired steam generators; § 60.40) are subject to the particulate matter and nitrogen oxides standards under this subpart and to the sulfur dioxide standards under subpart D (§ 60.43).

(3) Oil-fired affected facilities having a heat input capacity between 29 and 73 MW (100 and 250 million Btu/hour), inclusive, are subject to the nitrogen oxides standards under this subpart.

(4) Oil-fired affected facilities having a heat input capacity greater than 73 MW (250 million Btu/hour) and meeting the applicability requirements under subpart D (Standards of performance for fossil-fuel-fired steam generators; § 60.40) are also subject to the nitrogen oxides standards under this subpart and the particulate matter and sulfur dioxide standards under subpart D (§ 60.42 and § 60.43).

(c) Affected facilities which also meet the applicability requirements under subpart J (Standards of performance for petroleum refineries; § 60.104)

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are subject to the particulate matter and nitrogen oxides standards under this subpart and the sulfur dioxide standards under subpart J (§ 60.104).

(d) Affected facilities which also meet the applicability requirements under subpart E (Standards of performance for incinerators; § 60.50) are subject to the nitrogen oxides and particulate matter standards under this subpart.

(e) Steam generating units meeting the applicability requirements under subpart Da (Standards of performance for electric utility steam generating units; § 60.40a) are not subject to this subpart.

(f) Any change to an existing steam generating unit for the sole purpose of combusting gases containing TRS as defined under § 60.281 is not considered a modification under § 60.14 and the steam generating unit is not subject to this subpart.

(g) In delegating implementation and enforcement authority to a State under section 111(c) of the Act, the following authorities shall be retained by the Administrator and not transferred to a State.

(1) Section 60.44b(f).

(2) Section 60.44b(g).

(3) Section 60.49b(a)(4).

(h) Affected facilities which meet the applicability requirements under subpart Eb (Standards of performance for municipal waste combustors; § 60.50b) are not subject to this subpart.

(i) Unless and until subpart GG of this part is revised to extend the applicability of subpart GG of this part to steam generator units subject to this subpart, this subpart will continue to apply to combined cycle gas turbines that are capable of combusting more than 29 MW (100 million Btu/hour) heat input of fossil fuel in the steam generator. Only emissions resulting from combustion of fuels in the steam generating unit are subject to this subpart. (The gas turbine emissions are subject to subpart GG of this part.)

[52 FR 47842, Dec. 16, 1987, as amended at 63 FR 49454, Sept. 16, 1998]

### § 60.41b Definitions.

As used in this subpart, all terms not defined herein shall have the meaning

given them in the Act and in subpart A of this part.

*Annual capacity factor* means the ratio between the actual heat input to a steam generating unit from the fuels listed in § 60.42b(a), § 60.43b(a), or § 60.44b(a), as applicable, during a calendar year and the potential heat input to the steam generating unit had it been operated for 8,760 hours during a calendar year at the maximum steady state design heat input capacity. In the case of steam generating units that are rented or leased, the actual heat input shall be determined based on the combined heat input from all operations of the affected facility in a calendar year.

*Byproduct/waste* means any liquid or gaseous substance produced at chemical manufacturing plants or petroleum refineries (except natural gas, distillate oil, or residual oil) and combusted in a steam generating unit for heat recovery or for disposal. Gaseous substances with carbon dioxide levels greater than 50 percent or carbon monoxide levels greater than 10 percent are not byproduct/waste for the purposes of this subpart.

*Chemical manufacturing plants* means industrial plants which are classified by the Department of Commerce under Standard Industrial Classification (SIC) Code 28.

*Coal* means all solid fuels classified as anthracite, bituminous, subbituminous, or lignite by the American Society of Testing and Materials in ASTM D388-77, Standard Specification for Classification of Coals by Rank (IBR—see § 60.17), coal refuse, and petroleum coke. Coal-derived synthetic fuels, including but not limited to solvent refined coal, gasified coal, coal-oil mixtures, and coal-water mixtures, are also included in this definition for the purposes of this subpart.

*Coal refuse* means any byproduct of coal mining or coal cleaning operations with an ash content greater than 50 percent, by weight, and a heating value less than 13,900 kJ/kg (6,000 Btu/lb) on a dry basis.

*Combined cycle system* means a system in which a separate source, such as a gas turbine, internal combustion engine, kiln, etc., provides exhaust gas to a heat recovery steam generating unit.

*Conventional technology* means wet flue gas desulfurization (FGD) technology, dry FGD technology, atmospheric fluidized bed combustion technology, and oil hydrosulfurization technology.

*Distillate oil* means fuel oils that contain 0.05 weight percent nitrogen or less and comply with the specifications for fuel oil numbers 1 and 2, as defined by the American Society of Testing and Materials in ASTM D396-78, Standard Specifications for Fuel Oils (incorporated by reference—see § 60.17).

*Dry flue gas desulfurization technology* means a sulfur dioxide control system that is located downstream of the steam generating unit and removes sulfur oxides from the combustion gases of the steam generating unit by contacting the combustion gases with an alkaline slurry or solution and forming a dry powder material. This definition includes devices where the dry powder material is subsequently converted to another form. Alkaline slurries or solutions used in dry flue gas desulfurization technology include but are not limited to lime and sodium.

*Duct burner* means a device that combusts fuel and that is placed in the exhaust duct from another source, such as a stationary gas turbine, internal combustion engine, kiln, etc., to allow the firing of additional fuel to heat the exhaust gases before the exhaust gases enter a heat recovery steam generating unit.

*Emerging technology* means any sulfur dioxide control system that is not defined as a conventional technology under this section, and for which the owner or operator of the facility has applied to the Administrator and received approval to operate as an emerging technology under § 60.49b(a)(4).

*Federally enforceable* means all limitations and conditions that are enforceable by the Administrator, including the requirements of 40 CFR parts 60 and 61, requirements within any applicable State Implementation Plan, and any permit requirements established under 40 CFR 52.21 or under 40 CFR 51.18 and 40 CFR 51.24.

*Fluidized bed combustion technology* means combustion of fuel in a bed or series of beds (including but not limited to bubbling bed units and circulating bed units) of limestone aggregate (or other sorbent materials) in which these materials are forced upward by the flow of combustion air and the gaseous products of combustion.

*Fuel pretreatment* means a process that removes a portion of the sulfur in a fuel before combustion of the fuel in a steam generating unit.

*Full capacity* means operation of the steam generating unit at 90 percent or more of the maximum steady-state design heat input capacity.

*Heat input* means heat derived from combustion of fuel in a steam generating unit and does not include the heat input from preheated combustion air, recirculated flue gases, or exhaust gases from other sources, such as gas turbines, internal combustion engines, kilns, etc.

*Heat release rate* means the steam generating unit design heat input capacity (in MW or Btu/hour) divided by the furnace volume (in cubic meters or cubic feet); the furnace volume is that volume bounded by the front furnace wall where the burner is located, the furnace side waterwall, and extending to the level just below or in front of the first row of convection pass tubes.

*Heat transfer medium* means any material that is used to transfer heat from one point to another point.

*High heat release rate* means a heat release rate greater than 730,000 J/sec-m<sup>3</sup> (70,000 Btu/hour-ft<sup>3</sup>).

*Lignite* means a type of coal classified as lignite A or lignite B by the American Society of Testing and Materials in ASTM D388-77, Standard Specification for Classification of Coals by Rank (IBR—see § 60.17).

*Low heat release rate* means a heat release rate of 730,000 J/sec-m<sup>3</sup> (70,000 Btu/hour-ft<sup>3</sup>) or less.

*Mass-feed stoker steam generating unit* means a steam generating unit where solid fuel is introduced directly into a retort or is fed directly onto a grate where it is combusted.

*Maximum heat input capacity* means the ability of a steam generating unit to combust a stated maximum amount of fuel on a steady state basis, as determined by the physical design and characteristics of the steam generating unit.

*Municipal-type solid waste* means refuse, more than 50 percent of which is waste consisting of a mixture of paper, wood, yard wastes, food wastes, plastics, leather, rubber, and other combustible materials, and noncombustible materials such as glass and rock.

*Natural gas* means (1) a naturally occurring mixture of hydrocarbon and nonhydrocarbon gases found in geologic formations beneath the earth's surface, of which the principal constituent is methane; or (2) liquid petroleum gas, as defined by the American Society for Testing and Materials in ASTM D1835-82, "Standard Specification for Liquid Petroleum Gases" (IBR—see § 60.17).

*Noncontinental area* means the State of Hawaii, the Virgin Islands, Guam, American Samoa, the Commonwealth of Puerto Rico, or the Northern Mariana Islands.

*Oil* means crude oil or petroleum or a liquid fuel derived from crude oil or petroleum, including distillate and residual oil.

*Petroleum refinery* means industrial plants as classified by the Department of Commerce under Standard Industrial Classification (SIC) Code 29.

*Potential sulfur dioxide emission rate* means the theoretical sulfur dioxide emissions (ng/J, lb/million Btu heat input) that would result from combusting fuel in an uncleaned state and without using emission control systems.

*Process heater* means a device that is primarily used to heat a material to initiate or promote a chemical reaction in which the material participates as a reactant or catalyst.

*Pulverized coal-fired steam generating unit* means a steam generating unit in which pulverized coal is introduced into an air stream that carries the coal to the combustion chamber of the steam generating unit where it is fired in suspension. This includes both conventional pulverized coal-fired and micropulverized coal-fired steam generating units.

*Residual oil* means crude oil, fuel oil numbers 1 and 2 that have a nitrogen content greater than 0.05 weight percent, and all fuel oil numbers 4, 5 and 6, as defined by the American Society of Testing and Materials in ASTM

D396-78, Standard Specifications for Fuel Oils (IBR—see § 60.17).

*Spreader stoker steam generating unit* means a steam generating unit in which solid fuel is introduced to the combustion zone by a mechanism that throws the fuel onto a grate from above. Combustion takes place both in suspension and on the grate.

*Steam generating unit* means a device that combusts any fuel or byproduct/waste to produce steam or to heat water or any other heat transfer medium. This term includes any municipal-type solid waste incinerator with a heat recovery steam generating unit or any steam generating unit that combusts fuel and is part of a cogeneration system or a combined cycle system. This term does not include process heaters as they are defined in this subpart.

*Steam generating unit operating day* means a 24-hour period between 12:00 midnight and the following midnight during which any fuel is combusted at any time in the steam generating unit. It is not necessary for fuel to be combusted continuously for the entire 24-hour period.

*Very low sulfur oil* means an oil that contains no more than 0.5 weight percent sulfur or that, when combusted without sulfur dioxide emission control, has a sulfur dioxide emission rate equal to or less than 215 ng/J (0.5 lb/million Btu) heat input.

*Wet flue gas desulfurization technology* means a sulfur dioxide control system that is located downstream of the steam generating unit and removes sulfur oxides from the combustion gases of the steam generating unit by contacting the combustion gas with an alkaline slurry or solution and forming a liquid material. This definition applies to devices where the aqueous liquid material product of this contact is subsequently converted to other forms. Alkaline reagents used in wet flue gas desulfurization technology include, but are not limited to, lime, limestone, and sodium.

*Wet scrubber system* means any emission control device that mixes an aqueous stream or slurry with the exhaust gases from a steam generating unit to control emissions of particulate matter or sulfur dioxide.

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*Wood* means wood, wood residue, bark, or any derivative fuel or residue thereof, in any form, including, but not limited to, sawdust, sanderdust, wood chips, scraps, slabs, millings, shavings, and processed pellets made from wood or other forest residues.

[52 FR 47842, Dec. 16, 1987, as amended at 54 FR 51819, Dec. 18, 1989]

**§ 60.42b Standard for sulfur dioxide.**

(a) Except as provided in paragraphs (b), (c), (d), or (j) of this section, on and after the date on which the performance test is completed or required to be completed under § 60.8 of this part, whichever date comes first, no owner or operator of an affected facility that combusts coal or oil shall cause to be discharged into the atmosphere any gases that contain sulfur dioxide in excess of 10 percent (0.10) of the potential sulfur dioxide emission rate (90 percent reduction) and that contain sulfur dioxide in excess of the emission limit determined according to the following formula:

$$E_s = (K_a H_a + K_b H_b) / (H_a + H_b)$$

where:

$E_s$  is the sulfur dioxide emission limit, in ng/J or lb/million Btu heat input,

$K_a$  is 520 ng/J (or 1.2 lb/million Btu),

$K_b$  is 340 ng/J (or 0.80 lb/million Btu),

$H_a$  is the heat input from the combustion of coal, in J (million Btu),

$H_b$  is the heat input from the combustion of oil, in J (million Btu).

Only the heat input supplied to the affected facility from the combustion of coal and oil is counted under this section. No credit is provided for the heat input to the affected facility from the combustion of natural gas, wood, municipal-type solid waste, or other fuels or heat input to the affected facility from exhaust gases from another source, such as gas turbines, internal combustion engines, kilns, etc.

(b) On and after the date on which the performance test is completed or required to be completed under § 60.8 of this part, whichever comes first, no owner or operator of an affected facility that combusts coal refuse alone in a fluidized bed combustion steam generating unit shall cause to be discharged into the atmosphere any gases that contain sulfur dioxide in excess of

20 percent of the potential sulfur dioxide emission rate (80 percent reduction) and that contain sulfur dioxide in excess of 520 ng/J (1.2 lb/million Btu) heat input. If coal or oil is fired with coal refuse, the affected facility is subject to paragraph (a) or (d) of this section, as applicable.

(c) On and after the date on which the performance test is completed or is required to be completed under § 60.8 of this part, whichever comes first, no owner or operator of an affected facility that combusts coal or oil, either alone or in combination with any other fuel, and that uses an emerging technology for the control of sulfur dioxide emissions, shall cause to be discharged into the atmosphere any gases that contain sulfur dioxide in excess of 50 percent of the potential sulfur dioxide emission rate (50 percent reduction) and that contain sulfur dioxide in excess of the emission limit determined according to the following formula:

$$E_s = (K_c H_c + K_d H_d) / (H_c + H_d)$$

where:

$E_s$  is the sulfur dioxide emission limit, expressed in ng/J (lb/million Btu) heat input,

$K_c$  is 260 ng/J (0.60 lb/million Btu),

$K_d$  is 170 ng/J (0.40 lb/million Btu),

$H_c$  is the heat input from the combustion of coal, J (million Btu),

$H_d$  is the heat input from the combustion of oil, J (million Btu).

Only the heat input supplied to the affected facility from the combustion of coal and oil is counted under this section. No credit is provided for the heat input to the affected facility from the combustion of natural gas, wood, municipal-type solid waste, or other fuels, or from the heat input to the affected facility from exhaust gases from another source, such as gas turbines, internal combustion engines, kilns, etc.

(d) On and after the date on which the performance test is completed or required to be completed under § 60.8 of this part, whichever comes first, no owner or operator of an affected facility listed in paragraphs (d) (1), (2), or (3) of this section shall cause to be discharged into the atmosphere any gases that contain sulfur dioxide in excess of 520 ng/J (1.2 lb/million Btu) heat input if the affected facility combusts coal, or 215 ng/J (0.5 lb/million Btu) heat



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input if the affected facility combusts oil other than very low sulfur oil. Percent reduction requirements are not applicable to affected facilities under this paragraph.

(1) Affected facilities that have an annual capacity factor for coal and oil of 30 percent (0.30) or less and are subject to a Federally enforceable permit limiting the operation of the affected facility to an annual capacity factor for coal and oil of 30 percent (0.30) or less;

(2) Affected facilities located in a noncontinental area; or

(3) Affected facilities combusting coal or oil, alone or in combination with any other fuel, in a duct burner as part of a combined cycle system where 30 percent (0.30) or less of the heat input to the steam generating unit is from combustion of coal and oil in the duct burner and 70 percent (0.70) or more of the heat input to the steam generating unit is from the exhaust gases entering the duct burner.

(e) Except as provided in paragraph (f) of this section, compliance with the emission limits, fuel oil sulfur limits, and/or percent reduction requirements under this section are determined on a 30-day rolling average basis.

(f) Except as provided in paragraph (j)(2) of this section, compliance with the emission limits or fuel oil sulfur limits under this section is determined on a 24-hour average basis for affected facilities that (1) have a Federally enforceable permit limiting the annual capacity factor for oil to 10 percent or less, (2) combust only very low sulfur oil, and (3) do not combust any other fuel.

(g) Except as provided in paragraph (i) of this section, the sulfur dioxide emission limits and percent reduction requirements under this section apply at all times, including periods of start-up, shutdown, and malfunction.

(h) Reductions in the potential sulfur dioxide emission rate through fuel pretreatment are not credited toward the percent reduction requirement under paragraph (c) of this section unless:

(1) Fuel pretreatment results in a 50 percent or greater reduction in potential sulfur dioxide emissions and

(2) Emissions from the pretreated fuel (without combustion or post combustion sulfur dioxide control) are equal to or less than the emission limits specified in paragraph (c) of this section.

(i) An affected facility subject to paragraph (a), (b), or (c) of this section may combust very low sulfur oil or natural gas when the sulfur dioxide control system is not being operated because of malfunction or maintenance of the sulfur dioxide control system.

(j) Percent reduction requirements are not applicable to affected facilities combusting only very low sulfur oil. The owner or operator of an affected facility combusting very low sulfur oil shall demonstrate that the oil meets the definition of very low sulfur oil by: (1) Following the performance testing procedures as described in § 60.45b(c) or § 60.45b(d), and following the monitoring procedures as described in § 60.47b(a) or § 60.47b(b) to determine sulfur dioxide emission rate or fuel oil sulfur content; or (2) maintaining fuel receipts as described in § 60.49b(r).

[52 FR 47842, Dec. 16, 1987, as amended at 54 FR 51819, Dec. 18, 1989]

### § 60.43b Standard for particulate matter.

(a) On and after the date on which the initial performance test is completed or is required to be completed under § 60.8 of this part, whichever comes first, no owner or operator of an affected facility which combusts coal or combusts mixtures of coal with other fuels, shall cause to be discharged into the atmosphere from that affected facility any gases that contain particulate matter in excess of the following emission limits:

(1) 22 ng/J (0.05 lb/million Btu) heat input,

(i) If the affected facility combusts only coal, or

(ii) If the affected facility combusts coal and other fuels and has an annual capacity factor for the other fuels of 10 percent (0.10) or less.

(2) 43 ng/J (0.10 lb/million Btu) heat input if the affected facility combusts coal and other fuels and has an annual capacity factor for the other fuels greater than 10 percent (0.10) and is

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subject to a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor greater than 10 percent (0.10) for fuels other than coal.

(3) 86 ng/J (0.20 lb/million Btu) heat input if the affected facility combusts coal or coal and other fuels and

(i) Has an annual capacity factor for coal or coal and other fuels of 30 percent (0.30) or less,

(ii) Has a maximum heat input capacity of 73 MW (250 million Btu/hour) or less,

(iii) Has a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor of 30 percent (0.30) or less for coal or coal and other solid fuels, and

(iv) Construction of the affected facility commenced after June 19, 1984, and before November 25, 1986.

(b) On and after the date on which the performance test is completed or required to be completed under § 60.8 of this part, whichever date comes first, no owner or operator of an affected facility that combusts oil (or mixtures of oil with other fuels) and uses a conventional or emerging technology to reduce sulfur dioxide emissions shall cause to be discharged into the atmosphere from that affected facility any gases that contain particulate matter in excess of 43 ng/J (0.10 lb/million Btu) heat input.

(c) On and after the date on which the initial performance test is completed or is required to be completed under § 60.8 of this part, whichever date comes first, no owner or operator of an affected facility that combusts wood, or wood with other fuels, except coal, shall cause to be discharged from that affected facility any gases that contain particulate matter in excess of the following emission limits:

(1) 43 ng/J (0.10 lb/million Btu) heat input if the affected facility has an annual capacity factor greater than 30 percent (0.30) for wood.

(2) 86 ng/J (0.20 lb/million Btu) heat input if

(i) The affected facility has an annual capacity factor of 30 percent (0.30) or less for wood,

(ii) Is subject to a federally enforceable requirement limiting operation of the affected facility to an annual ca-

capacity factor of 30 percent (0.30) or less for wood, and

(iii) Has a maximum heat input capacity of 73 MW (250 million Btu/hour) or less.

(d) On and after the date on which the initial performance test is completed or is required to be completed under § 60.8 of this part, whichever date comes first, no owner or operator of an affected facility that combusts municipal-type solid waste or mixtures of municipal-type solid waste with other fuels, shall cause to be discharged into the atmosphere from that affected facility any gases that contain particulate matter in excess of the following emission limits:

(1) 43 ng/J (0.10 lb/million Btu) heat input.

(i) If the affected facility combusts only municipal-type solid waste, or

(ii) If the affected facility combusts municipal-type solid waste and other fuels and has an annual capacity factor for the other fuels of 10 percent (0.10) or less.

(2) 86 ng/J (0.20 lb/million Btu) heat input if the affected facility combusts municipal-type solid waste or municipal-type solid waste and other fuels; and

(i) Has an annual capacity factor for municipal-type solid waste and other fuels of 30 percent (0.30) or less,

(ii) Has a maximum heat input capacity of 73 MW (250 million Btu/hour) or less,

(iii) Has a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor of 30 percent (0.30) for municipal-type solid waste, or municipal-type solid waste and other fuels, and

(iv) Construction of the affected facility commenced after June 19, 1984, but before November 25, 1986.

(e) For the purposes of this section, the annual capacity factor is determined by dividing the actual heat input to the steam generating unit during the calendar year from the combustion of coal, wood, or municipal-type solid waste, and other fuels, as applicable, by the potential heat input to the steam generating unit if the steam generating unit had been operated for 8,760 hours at the maximum design heat input capacity.

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(f) On and after the date on which the initial performance test is completed or is required to be completed under § 60.8 of this part, whichever date comes first, no owner or operator of an affected facility that combusts coal, oil, wood, or mixtures of these fuels with any other fuels shall cause to be discharged into the atmosphere any gases that exhibit greater than 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity.

(g) The particulate matter and opacity standards apply at all times, except during periods of startup, shutdown or malfunction.

[52 FR 47842, Dec. 16, 1987, as amended at 54 FR 51819, Dec. 18, 1989]

### § 60.44b Standard for nitrogen oxides.

(a) Except as provided under paragraphs (k) and (l) of this section, on and after the date on which the initial performance test is completed or is required to be completed under § 60.8 of this part, whichever date comes first, no owner or operator of an affected facility that is subject to the provisions of this section and that combusts only coal, oil, or natural gas shall cause to be discharged into the atmosphere from that affected facility any gases that contain nitrogen oxides (expressed as NO<sub>2</sub>) in excess of the following emission limits:

Fuel/Steam generating unit type	Nitrogen oxide emission limits ng/J (lb/million Btu) (expressed as NO <sub>2</sub> ) heat input
(1) Natural gas and distillate oil, except (4):	
(i) Low heat release rate .....	43 (0.10)
(ii) High heat release rate .....	86 (0.20)
(2) Residual oil:	
(i) Low heat release rate .....	130 (0.30)
(ii) High heat release rate .....	170 (0.40)
(3) Coal:	
(i) Mass-feed stoker .....	210 (0.50)
(ii) Spreader stoker and fluidized bed combustion .....	260 (0.60)
(iii) Pulverized coal .....	300 (0.70)
(iv) Lignite, except (v) .....	260 (0.60)
(v) Lignite mined in North Dakota, South Dakota, or Montana and combusted in a slag tap furnace .....	340 (0.80)
(vi) Coal-derived synthetic fuels .....	210 (0.50)
(4) Duct burner used in a combined cycle system:	
(i) Natural gas and distillate oil .....	86 (0.20)
(ii) Residual oil .....	170 (0.40)

(b) Except as provided under paragraphs (k) and (l) of this section, on and after the date on which the initial performance test is completed or is required to be completed under § 60.8 of this part, whichever date comes first, no owner or operator of an affected facility that simultaneously combusts mixtures of coal, oil, or natural gas shall cause to be discharged into the atmosphere from that affected facility any gases that contain nitrogen oxides in excess of a limit determined by the use of the following formula:

$$E_n = [(EL_{go} H_{go}) + (EL_{ro} H_{ro}) + (EL_c H_c)] / (H_{go} + H_{ro} + H_c)$$

where:

E<sub>n</sub> is the nitrogen oxides emission limit (expressed as NO<sub>2</sub>), ng/J (lb/million Btu)

EL<sub>go</sub> is the appropriate emission limit from paragraph (a)(1) for combustion of natural gas or distillate oil, ng/J (lb/million Btu)

H<sub>go</sub> is the heat input from combustion of natural gas or distillate oil,

EL<sub>ro</sub> is the appropriate emission limit from paragraph (a)(2) for combustion of residual oil,

H<sub>ro</sub> is the heat input from combustion of residual oil,

EL<sub>c</sub> is the appropriate emission limit from paragraph (a)(3) for combustion of coal, and

H<sub>c</sub> is the heat input from combustion of coal.

(c) Except as provided under paragraph (l) of this section, on and after the date on which the initial performance test is completed or is required to be completed under § 60.8 of this part, whichever date comes first, no owner or operator of an affected facility that simultaneously combusts coal or oil, or a mixture of these fuels with natural gas, and wood, municipal-type solid waste, or any other fuel shall cause to be discharged into the atmosphere any gases that contain nitrogen oxides in excess of the emission limit for the coal or oil, or mixtures of these fuels with natural gas combusted in the affected facility, as determined pursuant to paragraph (a) or (b) of this section, unless the affected facility has an annual capacity factor for coal or oil, or mixture of these fuels with natural gas of 10 percent (0.10) or less and is subject to a federally enforceable requirement that limits operation of the affected facility to an annual capacity factor of 10

percent (0.10) or less for coal, oil, or a mixture of these fuels with natural gas.

(d) On and after the date on which the initial performance test is completed or is required to be completed under § 60.8 of this part, whichever date comes first, no owner or operator of an affected facility that simultaneously combusts natural gas with wood, municipal-type solid waste, or other solid fuel, except coal, shall cause to be discharged into the atmosphere from that affected facility any gases that contain nitrogen oxides in excess of 130 ng/J (0.30 lb/million Btu) heat input unless the affected facility has an annual capacity factor for natural gas of 10 percent (0.10) or less and is subject to a federally enforceable requirement that limits operation of the affected facility to an annual capacity factor of 10 percent (0.10) or less for natural gas.

(e) Except as provided under paragraph (l) of this section, on and after the date on which the initial performance test is completed or is required to be completed under § 60.8 of this part, whichever date comes first, no owner or operator of an affected facility that simultaneously combusts coal, oil, or natural gas with byproduct/waste shall cause to be discharged into the atmosphere any gases that contain nitrogen oxides in excess of the emission limit determined by the following formula unless the affected facility has an annual capacity factor for coal, oil, and natural gas of 10 percent (0.10) or less and is subject to a federally enforceable requirement that limits operation of the affected facility to an annual capacity factor of 10 percent (0.10) or less:

$$E_n = [(EL_{go} H_{go}) + (EL_{ro} H_{ro}) + (EL_c H_c)] / (H_{go} + H_{ro} + H_c)$$

where:

$E_n$  is the nitrogen oxides emission limit (expressed as  $NO_2$ ), ng/J (lb/million Btu)

$EL_{go}$  is the appropriate emission limit from paragraph (a)(1) for combustion of natural gas or distillate oil, ng/J (lb/million Btu).

$H_{go}$  is the heat input from combustion of natural gas, distillate oil and gaseous byproduct/waste, ng/J (lb/million Btu).

$EL_{ro}$  is the appropriate emission limit from paragraph (a)(2) for combustion of residual oil, ng/J (lb/million Btu)

$H_{ro}$  is the heat input from combustion of residual oil and/or liquid byproduct/waste.

$EL_c$  is the appropriate emission limit from paragraph (a)(3) for combustion of coal, and

$H_c$  is the heat input from combustion of coal.

(f) Any owner or operator of an affected facility that combusts byproduct/waste with either natural gas or oil may petition the Administrator within 180 days of the initial startup of the affected facility to establish a nitrogen oxides emission limit which shall apply specifically to that affected facility when the byproduct/waste is combusted. The petition shall include sufficient and appropriate data, as determined by the Administrator, such as nitrogen oxides emissions from the affected facility, waste composition (including nitrogen content), and combustion conditions to allow the Administrator to confirm that the affected facility is unable to comply with the emission limits in paragraph (e) of this section and to determine the appropriate emission limit for the affected facility.

(1) Any owner or operator of an affected facility petitioning for a facility-specific nitrogen oxides emission limit under this section shall:

(i) Demonstrate compliance with the emission limits for natural gas and distillate oil in paragraph (a)(1) of this section or for residual oil in paragraph (a)(2) of this section, as appropriate, by conducting a 30-day performance test as provided in § 60.46b(e). During the performance test only natural gas, distillate oil, or residual oil shall be combusted in the affected facility; and

(ii) Demonstrate that the affected facility is unable to comply with the emission limits for natural gas and distillate oil in paragraph (a)(1) of this section or for residual oil in paragraph (a)(2) of this section, as appropriate, when gaseous or liquid byproduct/waste is combusted in the affected facility under the same conditions and using the same technological system of emission reduction applied when demonstrating compliance under paragraph (f)(1)(i) of this section.

(2) The nitrogen oxides emission limits for natural gas or distillate oil in paragraph (a)(1) of this section or for residual oil in paragraph (a)(2) of this section, as appropriate, shall be applicable to the affected facility until and

unless the petition is approved by the Administrator. If the petition is approved by the Administrator, a facility-specific nitrogen oxides emission limit will be established at the nitrogen oxides emission level achievable when the affected facility is combusting oil or natural gas and byproduct/waste in a manner that the Administrator determines to be consistent with minimizing nitrogen oxides emissions.

(g) Any owner or operator of an affected facility that combusts hazardous waste (as defined by 40 CFR part 261 or 40 CFR part 761) with natural gas or oil may petition the Administrator within 180 days of the initial startup of the affected facility for a waiver from compliance with the nitrogen oxides emission limit which applies specifically to that affected facility. The petition must include sufficient and appropriate data, as determined by the Administrator, on nitrogen oxides emissions from the affected facility, waste destruction efficiencies, waste composition (including nitrogen content), the quantity of specific wastes to be combusted and combustion conditions to allow the Administrator to determine if the affected facility is able to comply with the nitrogen oxides emission limits required by this section. The owner or operator of the affected facility shall demonstrate that when hazardous waste is combusted in the affected facility, thermal destruction efficiency requirements for hazardous waste specified in an applicable federally enforceable requirement preclude compliance with the nitrogen oxides emission limits of this section. The nitrogen oxides emission limits for natural gas or distillate oil in paragraph (a)(1) of this section or for residual oil in paragraph (a)(2) of this section, as appropriate, are applicable to the affected facility until and unless the petition is approved by the Administrator. (See 40 CFR 761.70 for regulations applicable to the incineration of materials containing polychlorinated biphenyls (PCB's).)

(h) For purposes of paragraph (i) of this section, the nitrogen oxide standards under this section apply at all times including periods of startup, shutdown, or malfunction.

(i) Except as provided under paragraph (j) of this section, compliance with the emission limits under this section is determined on a 30-day rolling average basis.

(j) Compliance with the emission limits under this section is determined on a 24-hour average basis for the initial performance test and on a 3-hour average basis for subsequent performance tests for any affected facilities that:

(1) Combust, alone or in combination, only natural gas, distillate oil, or residual oil with a nitrogen content of 0.30 weight percent or less;

(2) Have a combined annual capacity factor of 10 percent or less for natural gas, distillate oil, and residual oil with a nitrogen content of 0.30 weight percent or less; and

(3) Are subject to a Federally enforceable requirement limiting operation of the affected facility to the firing of natural gas, distillate oil, and/or residual oil with a nitrogen content of 0.30 weight percent or less and limiting operation of the affected facility to a combined annual capacity factor of 10 percent or less for natural gas, distillate oil, and residual oil and a nitrogen content of 0.30 weight percent or less.

(k) Affected facilities that meet the criteria described in paragraphs (j) (1), (2), and (3) of this section, and that have a heat input capacity of 73 MW (250 million Btu/hour) or less, are not subject to the nitrogen oxides emission limits under this section.

(l) On and after the date on which the initial performance test is completed or is required to be completed under § 60.8 of this part, whichever date comes first, no owner or operator of an affected facility which commenced construction, modification, or reconstruction after July 9, 1997 shall cause to be discharged into the atmosphere from that affected facility any gases that contain nitrogen oxides (expressed as NO<sub>2</sub>) in excess of the following limits:

(1) If the affected facility combusts coal, oil, or natural gas, or a mixture of these fuels, or with any other fuels: A limit of 86 ng/J<sub>1</sub> (0.20 lb/million Btu) heat input unless the affected facility has an annual capacity factor for coal, oil, and natural gas of 10 percent (0.10

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or less and is subject to a federally enforceable requirement that limits operation of the facility to an annual capacity factor of 10 percent (0.10) or less for coal, oil, and natural gas; or

(2) If the affected facility has a low heat release rate and combusts natural gas or distillate oil in excess of 30 percent of the heat input from the combustion of all fuels, a limit determined by use of the following formula:

$$E_n = [(0.10 * H_{go}) + (0.20 * H_r)] / (H_{go} + H_r)$$

Where:

$E_n$  is the  $NO_x$  emission limit, (lb/million Btu),

$H_{go}$  is the heat input from combustion of natural gas or distillate oil, and  $H_r$  is the heat input from combustion of any other fuel.

[52 FR 47842, Dec. 16, 1987, as amended at 54 FR 51825, Dec. 18, 1989; 63 FR 49454, Sept. 16, 1998]

### § 60.45b Compliance and performance test methods and procedures for sulfur dioxide.

(a) The sulfur dioxide emission standards under § 60.42b apply at all times.

(b) In conducting the performance tests required under § 60.8, the owner or operator shall use the methods and procedures in appendix A of this part or the methods and procedures as specified in this section, except as provided in § 60.8(b). Section 60.8(f) does not apply to this section. The 30-day notice required in § 60.8(d) applies only to the initial performance test unless otherwise specified by the Administrator.

(c) The owner or operator of an affected facility shall conduct performance tests to determine compliance with the percent of potential sulfur dioxide emission rate (%  $P_s$ ) and the sulfur dioxide emission rate ( $E_s$ ) pursuant to § 60.42b following the procedures listed below, except as provided under paragraph (d) of this section.

(1) The initial performance test shall be conducted over the first 30 consecutive operating days of the steam generating unit. Compliance with the sulfur dioxide standards shall be determined using a 30-day average. The first operating day included in the initial performance test shall be scheduled within 30 days after achieving the maximum production rate at which the affected facility will be operated, but not later

than 180 days after initial startup of the facility.

(2) If only coal or only oil is combusted, the following procedures are used:

(i) The procedures in Method 19 are used to determine the hourly sulfur dioxide emission rate ( $E_{ho}$ ) and the 30-day average emission rate ( $E_{ao}$ ). The hourly averages used to compute the 30-day averages are obtained from the continuous emission monitoring system of § 60.47b (a) or (b).

(ii) The percent of potential sulfur dioxide emission rate (%  $P_s$ ) emitted to the atmosphere is computed using the following formula:

$$\% P_s = 100 (1 - \% R_g / 100) (1 - \% R_f / 100)$$

where:

%  $R_g$  is the sulfur dioxide removal efficiency of the control device as determined by Method 19, in percent.

%  $R_f$  is the sulfur dioxide removal efficiency of fuel pretreatment as determined by Method 19, in percent.

(3) If coal or oil is combusted with other fuels, the same procedures required in paragraph (c)(2) of this section are used, except as provided in the following:

(i) An adjusted hourly sulfur dioxide emission rate ( $E_{ho}^o$ ) is used in Equation 19-19 of Method 19 to compute an adjusted 30-day average emission rate ( $E_{ao}^o$ ). The  $E_{ho}$  is computed using the following formula:

$$E_{ho}^o = [E_{ho} - E_w (1 - X_k)] / X_k$$

where:

$E_{ho}^o$  is the adjusted hourly sulfur dioxide emission rate, ng/J (lb/million Btu).

$E_{ho}$  is the hourly sulfur dioxide emission rate, ng/J (lb/million Btu).

$E_w$  is the sulfur dioxide concentration in fuels other than coal and oil combusted in the affected facility, as determined by the fuel sampling and analysis procedures in Method 19, ng/J (lb/million Btu). The value  $E_w$  for each fuel lot is used for each hourly average during the time that the lot is being combusted.

$X_k$  is the fraction of total heat input from fuel combustion derived from coal, oil, or coal and oil, as determined by applicable procedures in Method 19.

(ii) To compute the percent of potential sulfur dioxide emission rate (%  $P_s$ ), an adjusted %  $R_g$  (%  $R_g^o$ ) is computed from the adjusted  $E_{ao}^o$  from paragraph (b)(3)(i) of this section and an adjusted

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average sulfur dioxide inlet rate ( $E_{ai}^o$ ) using the following formula:

$$\% R_g = 100 (1.0 - E_{ao}^o / E_{ai}^o)$$

To compute  $E_{ai}^o$ , an adjusted hourly sulfur dioxide inlet rate ( $E_{hi}^o$ ) is used. The  $E_{hi}^o$  is computed using the following formula:

$$E_{hi}^o = [E_{hi} - E_w(1 - X_k)] / X_k$$

where:

$E_{hi}^o$  is the adjusted hourly sulfur dioxide inlet rate, ng/J (lb/million Btu).

$E_{hi}$  is the hourly sulfur dioxide inlet rate, ng/J (lb/million Btu).

(4) The owner or operator of an affected facility subject to paragraph (b)(3) of this section does not have to measure parameters  $E_w$  or  $X_k$  if the owner or operator elects to assume that  $X_k=1.0$ . Owners or operators of affected facilities who assume  $X_k=1.0$  shall

(i) Determine %  $P_s$  following the procedures in paragraph (c)(2) of this section, and

(ii) Sulfur dioxide emissions ( $E_s$ ) are considered to be in compliance with sulfur dioxide emission limits under § 60.42b.

(5) The owner or operator of an affected facility that qualifies under the provisions of § 60.42b(d) does not have to measure parameters  $E_w$  or  $X_k$  under paragraph (b)(3) of this section if the owner or operator of the affected facility elects to measure sulfur dioxide emission rates of the coal or oil following the fuel sampling and analysis procedures under Method 19.

(d) Except as provided in paragraph (j), the owner or operator of an affected facility that combusts only very low sulfur oil, has an annual capacity factor for oil of 10 percent (0.10) or less, and is subject to a Federally enforceable requirement limiting operation of the affected facility to an annual capacity factor for oil of 10 percent (0.10) or less shall:

(1) Conduct the initial performance test over 24 consecutive steam generating unit operating hours at full load;

(2) Determine compliance with the standards after the initial performance test based on the arithmetic average of the hourly emissions data during each steam generating unit operating day if a continuous emission measurement system (CEMS) is used, or based on a

daily average if Method 6B or fuel sampling and analysis procedures under Method 19 are used.

(e) The owner or operator of an affected facility subject to § 60.42b(d)(1) shall demonstrate the maximum design capacity of the steam generating unit by operating the facility at maximum capacity for 24 hours. This demonstration will be made during the initial performance test and a subsequent demonstration may be requested at any other time. If the 24-hour average firing rate for the affected facility is less than the maximum design capacity provided by the manufacturer of the affected facility, the 24-hour average firing rate shall be used to determine the capacity utilization rate for the affected facility, otherwise the maximum design capacity provided by the manufacturer is used.

(f) For the initial performance test required under § 60.8, compliance with the sulfur dioxide emission limits and percent reduction requirements under § 60.42b is based on the average emission rates and the average percent reduction for sulfur dioxide for the first 30 consecutive steam generating unit operating days, except as provided under paragraph (d) of this section. The initial performance test is the only test for which at least 30 days prior notice is required unless otherwise specified by the Administrator. The initial performance test is to be scheduled so that the first steam generating unit operating day of the 30 successive steam generating unit operating days is completed within 30 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of the facility. The boiler load during the 30-day period does not have to be the maximum design load, but must be representative of future operating conditions and include at least one 24-hour period at full load.

(g) After the initial performance test required under § 60.8, compliance with the sulfur dioxide emission limits and percent reduction requirements under § 60.42b is based on the average emission rates and the average percent reduction for sulfur dioxide for 30 successive steam generating unit operating

days, except as provided under paragraph (d). A separate performance test is completed at the end of each steam generating unit operating day after the initial performance test, and a new 30-day average emission rate and percent reduction for sulfur dioxide are calculated to show compliance with the standard.

(h) Except as provided under paragraph (i) of this section, the owner or operator of an affected facility shall use all valid sulfur dioxide emissions data in calculating %  $P_s$  and  $E_{ho}$  under paragraph (c), of this section whether or not the minimum emissions data requirements under § 60.46b are achieved. All valid emissions data, including valid sulfur dioxides emission data collected during periods of startup, shutdown and malfunction, shall be used in calculating %  $P_s$  and  $E_{ho}$  pursuant to paragraph (c) of this section.

(i) During periods of malfunction or maintenance of the sulfur dioxide control systems when oil is combusted as provided under § 60.42b(i), emission data are not used to calculate %  $P_s$  or  $E_s$  under § 60.42b (a), (b) or (c), however, the emissions data are used to determine compliance with the emission limit under § 60.42b(i).

(j) The owner or operator of an affected facility that combusts very low sulfur oil is not subject to the compliance and performance testing requirements of this section if the owner or operator obtains fuel receipts as described in § 60.49b(r).

[52 FR 47842, Dec. 16, 1987, as amended at 54 FR 51820, 51825, Dec. 18, 1989]

**§ 60.46b Compliance and performance test methods and procedures for particulate matter and nitrogen oxides.**

(a) The particulate matter emission standards and opacity limits under § 60.43b apply at all times except during periods of startup, shutdown, or malfunction. The nitrogen oxides emission standards under § 60.44b apply at all times.

(b) Compliance with the particulate matter emission standards under § 60.43b shall be determined through performance testing as described in paragraph (d) of this section.

(c) Compliance with the nitrogen oxides emission standards under § 60.44b shall be determined through performance testing under paragraph (e) or (f), or under paragraphs (g) and (h) of this section, as applicable.

(d) To determine compliance with the particulate matter emission limits and opacity limits under § 60.43b, the owner or operator of an affected facility shall conduct an initial performance test as required under § 60.8 using the following procedures and reference methods:

(1) Method 3B is used for gas analysis when applying Method 5 or Method 17.

(2) Method 5, Method 5B, or Method 17 shall be used to measure the concentration of particulate matter as follows:

(i) Method 5 shall be used at affected facilities without wet flue gas desulfurization (FGD) systems; and

(ii) Method 17 may be used at facilities with or without wet scrubber systems provided the stack gas temperature does not exceed a temperature of 160 °C (320 °F). The procedures of sections 2.1 and 2.3 of Method 5B may be used in Method 17 only if it is used after a wet FGD system. Do not use Method 17 after wet FGD systems if the effluent is saturated or laden with water droplets.

(iii) Method 5B is to be used only after wet FGD systems.

(3) Method 1 is used to select the sampling site and the number of traverse sampling points. The sampling time for each run is at least 120 minutes and the minimum sampling volume is 1.7 dscm (60 dscf) except that smaller sampling times or volumes may be approved by the Administrator when necessitated by process variables or other factors.

(4) For Method 5, the temperature of the sample gas in the probe and filter holder is monitored and is maintained at 160 °C (320 °F).

(5) For determination of particulate matter emissions, the oxygen or carbon dioxide sample is obtained simultaneously with each run of Method 5, Method 5B or Method 17 by traversing the duct at the same sampling location.

(6) For each run using Method 5, Method 5B or Method 17, the emission



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rate expressed in nanograms per joule heat input is determined using:

(i) The oxygen or carbon dioxide measurements and particulate matter measurements obtained under this section,

(ii) The dry basis F factor, and

(iii) The dry basis emission rate calculation procedure contained in Method 19 (appendix A).

(7) Method 9 is used for determining the opacity of stack emissions.

(e) To determine compliance with the emission limits for nitrogen oxides required under § 60.44b, the owner or operator of an affected facility shall conduct the performance test as required under § 60.8 using the continuous system for monitoring nitrogen oxides under § 60.48(b).

(1) For the initial compliance test, nitrogen oxides from the steam generating unit are monitored for 30 successive steam generating unit operating days and the 30-day average emission rate is used to determine compliance with the nitrogen oxides emission standards under § 60.44b. The 30-day average emission rate is calculated as the average of all hourly emissions data recorded by the monitoring system during the 30-day test period.

(2) Following the date on which the initial performance test is completed or is required to be completed under § 60.8 of this part, whichever date comes first, the owner or operator of an affected facility which combusts coal or which combusts residual oil having a nitrogen content greater than 0.30 weight percent shall determine compliance with the nitrogen oxides emission standards under § 60.44b on a continuous basis through the use of a 30-day rolling average emission rate. A new 30-day rolling average emission rate is calculated each steam generating unit operating day as the average of all of the hourly nitrogen oxides emission data for the preceding 30 steam generating unit operating days.

(3) Following the date on which the initial performance test is completed or is required to be completed under § 60.8 of this part, whichever date comes first, the owner or operator of an affected facility which has a heat input capacity greater than 73 MW (250 million Btu/hour) and which combusts nat-

ural gas, distillate oil, or residual oil having a nitrogen content of 0.30 weight percent or less shall determine compliance with the nitrogen oxides standards under § 60.44b on a continuous basis through the use of a 30-day rolling average emission rate. A new 30-day rolling average emission rate is calculated each steam generating unit operating day as the average of all of the hourly nitrogen oxides emission data for the preceding 30 steam generating unit operating days.

(4) Following the date on which the initial performance test is completed or required to be completed under § 60.8 of this part, whichever date comes first, the owner or operator of an affected facility which has a heat input capacity of 73 MW (250 million Btu/hour) or less and which combusts natural gas, distillate oil, or residual oil having a nitrogen content of 0.30 weight percent or less shall upon request determine compliance with the nitrogen oxides standards under § 60.44b through the use of a 30-day performance test. During periods when performance tests are not requested, nitrogen oxides emissions data collected pursuant to § 60.48b(g)(1) or § 60.48b(g)(2) are used to calculate a 30-day rolling average emission rate on a daily basis and used to prepare excess emission reports, but will not be used to determine compliance with the nitrogen oxides emission standards. A new 30-day rolling average emission rate is calculated each steam generating unit operating day as the average of all of the hourly nitrogen oxides emission data for the preceding 30 steam generating unit operating days.

(5) If the owner or operator of an affected facility which combusts residual oil does not sample and analyze the residual oil for nitrogen content, as specified in § 60.49b(e), the requirements of paragraph (iii) of this section apply and the provisions of paragraph (iv) of this section are inapplicable.

(f) To determine compliance with the emission limit for nitrogen oxides required by § 60.44b(a)(4) for duct burners used in combined cycle systems, the owner or operator of an affected facility shall conduct the performance test required under § 60.8 using the nitrogen

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oxides and oxygen measurement procedures in 40 CFR part 60 appendix A, Method 20. During the performance test, one sampling site shall be located as close as practicable to the exhaust of the turbine, as provided by section 6.1.1 of Method 20. A second sampling site shall be located at the outlet to the steam generating unit. Measurements of nitrogen oxides and oxygen shall be taken at both sampling sites during the performance test. The nitrogen oxides emission rate from the combined cycle system shall be calculated by subtracting the nitrogen oxides emission rate measured at the sampling site at the outlet from the turbine from the nitrogen oxides emission rate measured at the sampling site at the outlet from the steam generating unit.

(g) The owner or operator of an affected facility described in § 60.44b(j) or § 60.44b(k) shall demonstrate the maximum heat input capacity of the steam generating unit by operating the facility at maximum capacity for 24 hours. The owner or operator of an affected facility shall determine the maximum heat input capacity using the heat loss method described in sections 5 and 7.3 of the ASME *Power Test Codes* 4.1 (see IBR § 60.17(h)). This demonstration of maximum heat input capacity shall be made during the initial performance test for affected facilities that meet the criteria of § 60.44b(j). It shall be made within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial start-up of each facility, for affected facilities meeting the criteria of § 60.44b(k). Subsequent demonstrations may be required by the Administrator at any other time. If this demonstration indicates that the maximum heat input capacity of the affected facility is less than that stated by the manufacturer of the affected facility, the maximum heat input capacity determined during this demonstration shall be used to determine the capacity utilization rate for the affected facility. Otherwise, the maximum heat input capacity provided by the manufacturer is used.

(h) The owner or operator of an affected facility described in § 60.44b(j)

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that has a heat input capacity greater than 73 MW (250 million Btu/hour) shall:

(1) Conduct an initial performance test as required under § 60.8 over a minimum of 24 consecutive steam generating unit operating hours at maximum heat input capacity to demonstrate compliance with the nitrogen oxides emission standards under § 60.44b using Method 7, 7A, 7E, or other approved reference methods; and

(2) Conduct subsequent performance tests once per calendar year or every 400 hours of operation (whichever comes first) to demonstrate compliance with the nitrogen oxides emission standards under § 60.44b over a minimum of 3 consecutive steam generating unit operating hours at maximum heat input capacity using Method 7, 7A, 7E, or other approved reference methods.

[52 FR 47842, Dec. 16, 1987, as amended at 54 FR 51820, 51825, Dec. 18, 1989; 55 FR 18876, May 7, 1990]

#### § 60.47b Emission monitoring for sulfur dioxide.

(a) Except as provided in paragraphs (b) and (f) of this section, the owner or operator of an affected facility subject to the sulfur dioxide standards under § 60.42b shall install, calibrate, maintain, and operate continuous emission monitoring systems (CEMS) for measuring sulfur dioxide concentrations and either oxygen (O<sub>2</sub>) or carbon dioxide (CO<sub>2</sub>) concentrations and shall record the output of the systems. The sulfur dioxide and either oxygen or carbon dioxide concentrations shall both be monitored at the inlet and outlet of the sulfur dioxide control device.

(b) As an alternative to operating CEMS as required under paragraph (a) of this section, an owner or operator may elect to determine the average sulfur dioxide emissions and percent reduction by:

(1) Collecting coal or oil samples in an as-fired condition at the inlet to the steam generating unit and analyzing them for sulfur and heat content according to Method 19. Method 19 provides procedures for converting these measurements into the format to be used in calculating the average sulfur dioxide input rate, or

(2) Measuring sulfur dioxide according to Method 6B at the inlet or outlet to the sulfur dioxide control system. An initial stratification test is required to verify the adequacy of the Method 6B sampling location. The stratification test shall consist of three paired runs of a suitable sulfur dioxide and carbon dioxide measurement train operated at the candidate location and a second similar train operated according to the procedures in section 3.2 and the applicable procedures in section 7 of Performance Specification 2. Method 6B, Method 6A, or a combination of Methods 6 and 3 or 3B or Methods 6C and 3A are suitable measurement techniques. If Method 6B is used for the second train, sampling time and timer operation may be adjusted for the stratification test as long as an adequate sample volume is collected; however, both sampling trains are to be operated similarly. For the location to be adequate for Method 6B 24-hour tests, the mean of the absolute difference between the three paired runs must be less than 10 percent.

(3) A daily sulfur dioxide emission rate,  $E_D$ , shall be determined using the procedure described in Method 6A, section 7.6.2 (Equation 6A-8) and stated in ng/J (lb/million Btu) heat input.

(4) The mean 30-day emission rate is calculated using the daily measured values in ng/J (lb/million Btu) for 30 successive steam generating unit operating days using equation 19-20 of Method 19.

(c) The owner or operator of an affected facility shall obtain emission data for at least 75 percent of the operating hours in at least 22 out of 30 successive boiler operating days. If this minimum data requirement is not met with a single monitoring system, the owner or operator of the affected facility shall supplement the emission data with data collected with other monitoring systems as approved by the Administrator or the reference methods and procedures as described in paragraph (b) of this section.

(d) The 1-hour average sulfur dioxide emission rates measured by the CEMS required by paragraph (a) of this section and required under §60.13(h) is expressed in ng/J or lb/million Btu heat input and is used to calculate the aver-

age emission rates under §60.42b. Each 1-hour average sulfur dioxide emission rate must be based on more than 30 minutes of steam generating unit operation and include at least 2 data points with each representing a 15-minute period. Hourly sulfur dioxide emission rates are not calculated if the affected facility is operated less than 30 minutes in a 1-hour period and are not counted toward determination of a steam generating unit operating day.

(e) The procedures under §60.13 shall be followed for installation, evaluation, and operation of the CEMS.

(1) All CEMS shall be operated in accordance with the applicable procedures under Performance Specifications 1, 2, and 3 (appendix B).

(2) Quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with Procedure 1 (appendix F).

(3) For affected facilities combusting coal or oil, alone or in combination with other fuels, the span value of the sulfur dioxide CEMS at the inlet to the sulfur dioxide control device is 125 percent of the maximum estimated hourly potential sulfur dioxide emissions of the fuel combusted, and the span value of the CEMS at the outlet to the sulfur dioxide control device is 50 percent of the maximum estimated hourly potential sulfur dioxide emissions of the fuel combusted.

(f) The owner or operator of an affected facility that combusts very low sulfur oil is not subject to the emission monitoring requirements of this section if the owner or operator obtains fuel receipts as described in §60.49b(r).

[52 FR 47842, Dec. 16, 1987, as amended at 54 FR 51820, Dec. 18, 1989; 55 FR 5212, Feb. 14, 1990; 55 FR 18876, May 7, 1990]

**§ 60.48b Emission monitoring for particulate matter and nitrogen oxides.**

(a) The owner or operator of an affected facility subject to the opacity standard under §60.43b shall install, calibrate, maintain, and operate a continuous monitoring system for measuring the opacity of emissions discharged to the atmosphere and record the output of the system.

(b) Except as provided under paragraphs (g), (h), and (i) of this section,

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the owner or operator of an affected facility shall comply with either paragraphs (b)(1) or (b)(2) of this section.

(1) Install, calibrate, maintain, and operate a continuous monitoring system, and record the output of the system, for measuring nitrogen oxides emissions discharged to the atmosphere; or

(2) If the owner or operator has installed a nitrogen oxides emission rate continuous emission monitoring system (CEMS) to meet the requirements of part 75 of this chapter and is continuing to meet the ongoing requirements of part 75 of this chapter, that CEMS may be used to meet the requirements of this section, except that the owner or operator shall also meet the requirements of § 60.49b. Data reported to meet the requirements of § 60.49b shall not include data substituted using the missing data procedures in subpart D of part 75 of this chapter, nor shall the data have been bias adjusted according to the procedures of part 75 of this chapter.

(c) The continuous monitoring systems required under paragraph (b) of this section shall be operated and data recorded during all periods of operation of the affected facility except for continuous monitoring system breakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments.

(d) The 1-hour average nitrogen oxides emission rates measured by the continuous nitrogen oxides monitor required by paragraph (b) of this section and required under § 60.13(h) shall be expressed in ng/J or lb/million Btu heat input and shall be used to calculate the average emission rates under § 60.44b. The 1-hour averages shall be calculated using the data points required under § 60.13(b). At least 2 data points must be used to calculate each 1-hour average.

(e) The procedures under § 60.13 shall be followed for installation, evaluation, and operation of the continuous monitoring systems.

(1) For affected facilities combusting coal, wood or municipal-type solid waste, the span value for a continuous monitoring system for measuring opacity shall be between 60 and 80 percent.

(2) For affected facilities combusting coal, oil, or natural gas, the span value

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for nitrogen oxides is determined as follows:

Fuel	Span values for nitrogen oxides (PPM)
Natural gas .....	500
Oil .....	500
Coal .....	1,000
Mixtures .....	$500(x+y)+1,000z$

where:

x is the fraction of total heat input derived from natural gas,

y is the fraction of total heat input derived from oil, and

z is the fraction of total heat input derived from coal.

(3) All span values computed under paragraph (e)(2) of this section for combusting mixtures of regulated fuels are rounded to the nearest 500 ppm.

(f) When nitrogen oxides emission data are not obtained because of continuous monitoring system breakdowns, repairs, calibration checks and zero and span adjustments, emission data will be obtained by using standby monitoring systems, Method 7, Method 7A, or other approved reference methods to provide emission data for a minimum of 75 percent of the operating hours in each steam generating unit operating day, in at least 22 out of 30 successive steam generating unit operating days.

(g) The owner or operator of an affected facility that has a heat input capacity of 73 MW (250 million Btu/hour) or less, and which has an annual capacity factor for residual oil having a nitrogen content of 0.30 weight percent or less, natural gas, distillate oil, or any mixture of these fuels, greater than 10 percent (0.10) shall:

(1) Comply with the provisions of paragraphs (b), (c), (d), (e)(2), (e)(3), and (f) of this section, or

(2) Monitor steam generating unit operating conditions and predict nitrogen oxides emission rates as specified in a plan submitted pursuant to § 60.49b(c).

(h) The owner or operator of an affected facility which is subject to the nitrogen oxides standards of § 60.44b(a)(4) is not required to install or operate a continuous monitoring system to measure nitrogen oxides emissions.

(i) The owner or operator of an affected facility described in § 60.44b(j) or

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§ 60.44b(k) is not required to install or operate a continuous monitoring system for measuring nitrogen oxides emissions.

[52 FR 47842, Dec. 16, 1987, as amended at 54 FR 51825, Dec. 18, 1989; 63 FR 49455, Sept. 16, 1998]

### **§ 60.49b Reporting and recordkeeping requirements.**

(a) The owner or operator of each affected facility shall submit notification of the date of initial startup, as provided by § 60.7. This notification shall include:

(1) The design heat input capacity of the affected facility and identification of the fuels to be combusted in the affected facility,

(2) If applicable, a copy of any Federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under §§ 60.42b(d)(1), 60.43b(a)(2), (a)(3)(iii), (c)(2)(ii), (d)(2)(iii), 60.44b(c), (d), (e), (i), (j), (k), 60.45b(d), (g), 60.46b(h), or 60.48b(i),

(3) The annual capacity factor at which the owner or operator anticipates operating the facility based on all fuels fired and based on each individual fuel fired, and,

(4) Notification that an emerging technology will be used for controlling emissions of sulfur dioxide. The Administrator will examine the description of the emerging technology and will determine whether the technology qualifies as an emerging technology. In making this determination, the Administrator may require the owner or operator of the affected facility to submit additional information concerning the control device. The affected facility is subject to the provisions of § 60.42b(a) unless and until this determination is made by the Administrator.

(b) The owner or operator of each affected facility subject to the sulfur dioxide, particulate matter, and/or nitrogen oxides emission limits under §§ 60.42b, 60.43b, and 60.44b shall submit to the Administrator the performance test data from the initial performance test and the performance evaluation of the CEMS using the applicable performance specifications in appendix B. The owner or operator of each affected facility described in § 60.44b(j) or

§ 60.44b(k) shall submit to the Administrator the maximum heat input capacity data from the demonstration of the maximum heat input capacity of the affected facility.

(c) The owner or operator of each affected facility subject to the nitrogen oxides standard of § 60.44b who seeks to demonstrate compliance with those standards through the monitoring of steam generating unit operating conditions under the provisions of § 60.48b(g)(2) shall submit to the Administrator for approval a plan that identifies the operating conditions to be monitored under § 60.48b(g)(2) and the records to be maintained under § 60.49b(j). This plan shall be submitted to the Administrator for approval within 360 days of the initial startup of the affected facility. The plan shall:

(1) Identify the specific operating conditions to be monitored and the relationship between these operating conditions and nitrogen oxides emission rates (i.e., ng/J or lbs/million Btu heat input). Steam generating unit operating conditions include, but are not limited to, the degree of staged combustion (i.e., the ratio of primary air to secondary and/or tertiary air) and the level of excess air (i.e., flue gas oxygen level);

(2) Include the data and information that the owner or operator used to identify the relationship between nitrogen oxides emission rates and these operating conditions;

(3) Identify how these operating conditions, including steam generating unit load, will be monitored under § 60.48b(g) on an hourly basis by the owner or operator during the period of operation of the affected facility; the quality assurance procedures or practices that will be employed to ensure that the data generated by monitoring these operating conditions will be representative and accurate; and the type and format of the records of these operating conditions, including steam generating unit load, that will be maintained by the owner or operator under § 60.49b(j).

If the plan is approved, the owner or operator shall maintain records of predicted nitrogen oxide emission rates

and the monitored operating conditions, including steam generating unit load, identified in the plan.

(d) The owner or operator of an affected facility shall record and maintain records of the amounts of each fuel combusted during each day and calculate the annual capacity factor individually for coal, distillate oil, residual oil, natural gas, wood, and municipal-type solid waste for the reporting period. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month.

(e) For an affected facility that combusts residual oil and meets the criteria under §§ 60.46b(e)(4), 60.44b (j), or (k), the owner or operator shall maintain records of the nitrogen content of the residual oil combusted in the affected facility and calculate the average fuel nitrogen content for the reporting period. The nitrogen content shall be determined using ASTM Method D3431-80, Test Method for Trace Nitrogen in Liquid Petroleum Hydrocarbons (IBR-see § 60.17), or fuel suppliers. If residual oil blends are being combusted, fuel nitrogen specifications may be prorated based on the ratio of residual oils of different nitrogen content in the fuel blend.

(f) For facilities subject to the opacity standard under § 60.43b, the owner or operator shall maintain records of opacity.

(g) Except as provided under paragraph (p) of this section, the owner or operator of an affected facility subject to the nitrogen oxides standards under § 60.44b shall maintain records of the following information for each steam generating unit operating day:

(1) Calendar date.

(2) The average hourly nitrogen oxides emission rates (expressed as NO<sub>2</sub>) (ng/J or lb/million Btu heat input) measured or predicted.

(3) The 30-day average nitrogen oxides emission rates (ng/J or lb/million Btu heat input) calculated at the end of each steam generating unit operating day from the measured or predicted hourly nitrogen oxide emission rates for the preceding 30 steam generating unit operating days.

(4) Identification of the steam generating unit operating days when the calculated 30-day average nitrogen oxides emission rates are in excess of the nitrogen oxides emissions standards under § 60.44b, with the reasons for such excess emissions as well as a description of corrective actions taken.

(5) Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken.

(6) Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data.

(7) Identification of "F" factor used for calculations, method of determination, and type of fuel combusted.

(8) Identification of the times when the pollutant concentration exceeded full span of the continuous monitoring system.

(9) Description of any modifications to the continuous monitoring system that could affect the ability of the continuous monitoring system to comply with Performance Specification 2 or 3.

(10) Results of daily CEMS drift tests and quarterly accuracy assessments as required under appendix F, Procedure 1.

(h) The owner or operator of any affected facility in any category listed in paragraphs (h) (1) or (2) of this section is required to submit excess emission reports for any excess emissions which occurred during the reporting period.

(1) Any affected facility subject to the opacity standards under § 60.43b(e) or to the operating parameter monitoring requirements under § 60.13(i)(1).

(2) Any affected facility that is subject to the nitrogen oxides standard of § 60.44b, and that

(i) Combusts natural gas, distillate oil, or residual oil with a nitrogen content of 0.3 weight percent or less, or

(ii) Has a heat input capacity of 73 MW (250 million Btu/hour) or less and is required to monitor nitrogen oxides emissions on a continuous basis under § 60.48b(g)(1) or steam generating unit operating conditions under § 60.48b(g)(2).

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(3) For the purpose of § 60.43b, excess emissions are defined as all 6-minute periods during which the average opacity exceeds the opacity standards under § 60.43b(f).

(4) For purposes of § 60.48b(g)(1), excess emissions are defined as any calculated 30-day rolling average nitrogen oxides emission rate, as determined under § 60.46b(e), which exceeds the applicable emission limits in § 60.44b.

(i) The owner or operator of any affected facility subject to the continuous monitoring requirements for nitrogen oxides under § 60.48(b) shall submit reports containing the information recorded under paragraph (g) of this section.

(j) The owner or operator of any affected facility subject to the sulfur dioxide standards under § 60.42b shall submit reports.

(k) For each affected facility subject to the compliance and performance testing requirements of § 60.45b and the reporting requirement in paragraph (j) of this section, the following information shall be reported to the Administrator:

(1) Calendar dates covered in the reporting period.

(2) Each 30-day average sulfur dioxide emission rate (ng/J or lb/million Btu heat input) measured during the reporting period, ending with the last 30-day period; reasons for noncompliance with the emission standards; and a description of corrective actions taken.

(3) Each 30-day average percent reduction in sulfur dioxide emissions calculated during the reporting period, ending with the last 30-day period; reasons for noncompliance with the emission standards; and a description of corrective actions taken.

(4) Identification of the steam generating unit operating days that coal or oil was combusted and for which sulfur dioxide or diluent (oxygen or carbon dioxide) data have not been obtained by an approved method for at least 75 percent of the operating hours in the steam generating unit operating day; justification for not obtaining sufficient data; and description of corrective action taken.

(5) Identification of the times when emissions data have been excluded from the calculation of average emis-

sion rates; justification for excluding data; and description of corrective action taken if data have been excluded for periods other than those during which coal or oil were not combusted in the steam generating unit.

(6) Identification of "F" factor used for calculations, method of determination, and type of fuel combusted.

(7) Identification of times when hourly averages have been obtained based on manual sampling methods.

(8) Identification of the times when the pollutant concentration exceeded full span of the CEMS.

(9) Description of any modifications to the CEMS that could affect the ability of the CEMS to comply with Performance Specification 2 or 3.

(10) Results of daily CEMS drift tests and quarterly accuracy assessments as required under appendix F, Procedure 1.

(11) The annual capacity factor of each fired as provided under paragraph (d) of this section.

(l) For each affected facility subject to the compliance and performance testing requirements of § 60.45b(d) and the reporting requirements of paragraph (j) of this section, the following information shall be reported to the Administrator:

(1) Calendar dates when the facility was in operation during the reporting period;

(2) The 24-hour average sulfur dioxide emission rate measured for each steam generating unit operating day during the reporting period that coal or oil was combusted, ending in the last 24-hour period in the quarter; reasons for noncompliance with the emission standards; and a description of corrective actions taken;

(3) Identification of the steam generating unit operating days that coal or oil was combusted for which sulfur dioxide or diluent (oxygen or carbon dioxide) data have not been obtained by an approved method for at least 75 percent of the operating hours; justification for not obtaining sufficient data; and description of corrective action taken.

(4) Identification of the times when emissions data have been excluded from the calculation of average emission rates; justification for excluding

data; and description of corrective action taken if data have been excluded for periods other than those during which coal or oil were not combusted in the steam generating unit.

(5) Identification of "F" factor used for calculations, method of determination, and type of fuel combusted.

(6) Identification of times when hourly averages have been obtained based on manual sampling methods.

(7) Identification of the times when the pollutant concentration exceeded full span of the CEMS.

(8) Description of any modifications to the CEMS which could affect the ability of the CEMS to comply with Performance Specification 2 or 3.

(9) Results of daily CEMS drift tests and quarterly accuracy assessments as required under appendix F, Procedure 1.

(m) For each affected facility subject to the sulfur dioxide standards under § 60.42(b) for which the minimum amount of data required under § 60.47b(f) were not obtained during the reporting period, the following information is reported to the Administrator in addition to that required under paragraph (k) of this section:

(1) The number of hourly averages available for outlet emission rates and inlet emission rates.

(2) The standard deviation of hourly averages for outlet emission rates and inlet emission rates, as determined in Method 19, section 7.

(3) The lower confidence limit for the mean outlet emission rate and the upper confidence limit for the mean inlet emission rate, as calculated in Method 19, section 7.

(4) The ratio of the lower confidence limit for the mean outlet emission rate and the allowable emission rate, as determined in Method 19, section 7.

(n) If a percent removal efficiency by fuel pretreatment (i.e., %  $R_f$ ) is used to determine the overall percent reduction (i.e., %  $R_o$ ) under § 60.45b, the owner or operator of the affected facility shall submit a signed statement with the report.

(1) Indicating what removal efficiency by fuel pretreatment (i.e., %  $R_f$ ) was credited during the reporting period;

(2) Listing the quantity, heat content, and date each pre-treated fuel shipment was received during the reporting period, the name and location of the fuel pretreatment facility; and the total quantity and total heat content of all fuels received at the affected facility during the reporting period.

(3) Documenting the transport of the fuel from the fuel pretreatment facility to the steam generating unit.

(4) Including a signed statement from the owner or operator of the fuel pretreatment facility certifying that the percent removal efficiency achieved by fuel pretreatment was determined in accordance with the provisions of Method 19 (appendix A) and listing the heat content and sulfur content of each fuel before and after fuel pretreatment.

(o) All records required under this section shall be maintained by the owner or operator of the affected facility for a period of 2 years following the date of such record.

(p) The owner or operator of an affected facility described in § 60.44b(j) or (k) shall maintain records of the following information for each steam generating unit operating day:

(1) Calendar date,

(2) The number of hours of operation, and

(3) A record of the hourly steam load.

(q) The owner or operator of an affected facility described in § 60.44b(j) or § 60.44b(k) shall submit to the Administrator a report containing:

(1) The annual capacity factor over the previous 12 months;

(2) The average fuel nitrogen content during the reporting period, if residual oil was fired; and

(3) If the affected facility meets the criteria described in § 60.44b(j), the results of any nitrogen oxides emission tests required during the reporting period, the hours of operation during the reporting period, and the hours of operation since the last nitrogen oxides emission test.

(r) The owner or operator of an affected facility who elects to demonstrate that the affected facility combusts only very low sulfur oil under § 60.42b(j)(2) shall obtain and maintain at the affected facility fuel receipts from the fuel supplier which certify



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that the oil meets the definition of distillate oil as defined in § 60.41b. For the purposes of this section, the oil need not meet the fuel nitrogen content specification in the definition of distillate oil. Reports shall be submitted to the Administrator certifying that only very low sulfur oil meeting this definition was combusted in the affected facility during the reporting period.

(s) The reporting period for the reports required under this subpart is each six-month period. All reports shall be submitted to the Administrator and shall be postmarked by the 30th day following the end of the reporting period.

(t) Facility-specific nitrogen oxides standard for Rohm and Haas Kentucky Incorporated's Boiler No. 100 located in Louisville, Kentucky:

### (1) Definitions.

*Air ratio control damper* is defined as the part of the low nitrogen oxides burner that is adjusted to control the split of total combustion air delivered to the reducing and oxidation portions of the combustion flame.

*Flue gas recirculation line* is defined as the part of Boiler No. 100 that recirculates a portion of the boiler flue gas back into the combustion air.

(2) *Standard for nitrogen oxides.* (i) When fossil fuel alone is combusted, the nitrogen oxides emission limit for fossil fuel in § 60.44b(a) applies.

(ii) When fossil fuel and chemical by-product waste are simultaneously combusted, the nitrogen oxides emission limit is 473 ng/J (1.1 lb/million Btu), and the air ratio control damper tee handle shall be at a minimum of 5 inches (12.7 centimeters) out of the boiler, and the flue gas recirculation line shall be operated at a minimum of 10 percent open as indicated by its valve opening position indicator.

(3) *Emission monitoring for nitrogen oxides.* (i) The air ratio control damper tee handle setting and the flue gas recirculation line valve opening position indicator setting shall be recorded during each 8-hour operating shift.

(ii) The nitrogen oxides emission limit shall be determined by the compliance and performance test methods and procedures for nitrogen oxides in § 60.46b.

(iii) The monitoring of the nitrogen oxides emission limit shall be performed in accordance with § 60.48b.

(4) *Reporting and recordkeeping requirements.* (i) The owner or operator of Boiler No. 100 shall submit a report on any excursions from the limits required by paragraph (b)(2) of this section to the Administrator with the quarterly report required by § 60.49b(i).

(ii) The owner or operator of Boiler No. 100 shall keep records of the monitoring required by paragraph (b)(3) of this section for a period of 2 years following the date of such record.

(iii) The owner or operator of Boiler No. 100 shall perform all the applicable reporting and recordkeeping requirements of § 60.49b.

(u) *Site-specific standard for Merck & Co., Inc.'s Stonewall Plant in Elkton, Virginia.* (1) This paragraph applies only to the pharmaceutical manufacturing facility, commonly referred to as the Stonewall Plant, located at Route 340 South, in Elkton, Virginia ("site") and only to the natural gas-fired boilers installed as part of the powerhouse conversion required pursuant to 40 CFR 52.2454(g). The requirements of this paragraph shall apply, and the requirements of §§ 60.40b through 60.49b(t) shall not apply, to the natural gas-fired boilers installed pursuant to 40 CFR 52.2454(g).

(i) The site shall equip the natural gas-fired boilers with low nitrogen oxide (NO<sub>x</sub>) technology.

(ii) The site shall install, calibrate, maintain, and operate a continuous monitoring and recording system for measuring NO<sub>x</sub> emissions discharged to the atmosphere and opacity using a continuous emissions monitoring system or a predictive emissions monitoring system.

(iii) Within 180 days of the completion of the powerhouse conversion, as required by 40 CFR 52.2454, the site shall perform a stack test to quantify criteria pollutant emissions.

### (2) [Reserved]

(v) The owner or operator of an affected facility may submit electronic quarterly reports for SO<sub>2</sub> and/or NO<sub>x</sub> and/or opacity in lieu of submitting the written reports required under paragraphs (h), (i), (j), (k) or (l) of this section. The format of each quarterly

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electronic report shall be coordinated with the permitting authority. The electronic report(s) shall be submitted no later than 30 days after the end of the calendar quarter and shall be accompanied by a certification statement from the owner or operator, indicating whether compliance with the applicable emission standards and minimum data requirements of this subpart was achieved during the reporting period. Before submitting reports in the electronic format, the owner or operator shall coordinate with the permitting authority to obtain their agreement to submit reports in this alternative format.

[52 FR 47842, Dec. 16, 1987, as amended at 54 FR 51820, 51825, Dec. 18, 1989; 60 FR 28062, May 30, 1995; 61 FR 14031, Mar. 29, 1996; 62 FR 52641, Oct. 8, 1997; 63 FR 49455, Sept. 16, 1998; 64 FR 7464, Feb. 12, 1999]

### Subpart Dc—Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units

SOURCE: 55 FR 37683, Sept. 12, 1990, unless otherwise noted.

#### § 60.40c Applicability and delegation of authority.

(a) Except as provided in paragraph (d) of this section, the affected facility to which this subpart applies is each steam generating unit for which construction, modification, or reconstruction is commenced after June 9, 1989 and that has a maximum design heat input capacity of 29 megawatts (MW) (100 million Btu per hour (Btu/hr)) or less, but greater than or equal to 2.9 MW (10 million Btu/hr).

(b) In delegating implementation and enforcement authority to a State under section 111(c) of the Clean Air Act, § 60.48c(a)(4) shall be retained by the Administrator and not transferred to a State.

(c) Steam generating units which meet the applicability requirements in paragraph (a) of this section are not subject to the sulfur dioxide (SO<sub>2</sub>) or particulate matter (PM) emission limits, performance testing requirements, or monitoring requirements under this subpart (§§ 60.42c, 60.43c, 60.44c, 60.45c,

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60.46c, or 60.47c) during periods of combustion research, as defined in § 60.41c.

(d) Any temporary change to an existing steam generating unit for the purpose of conducting combustion research is not considered a modification under § 60.14.

[55 FR 37683, Sept. 12, 1990, as amended at 61 FR 20736, May 8, 1996]

#### § 60.41c Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Clean Air Act and in subpart A of this part.

*Annual capacity factor* means the ratio between the actual heat input to a steam generating unit from an individual fuel or combination of fuels during a period of 12 consecutive calendar months and the potential heat input to the steam generating unit from all fuels had the steam ch a separate source (such as a stationary gas turbine, internal combustion engine, or kiln) provides exhaust gas to a steam generating unit.

*Coal* means all solid fuels classified as anthracite, bituminous, subbituminous, or lignite by the American Society for Testing and Materials in ASTM D388-77, "Standard Specification for Classification of Coals by Rank" (incorporated by reference—see § 60.17); coal refuse; and petroleum coke. Synthetic fuels derived from coal for the purpose of creating useful heat, including but not limited to solvent-refined coal, gasified coal, coal-oil mixtures, and coal-water mixtures, are included in this definition for the purposes of this subpart.

*Coal refuse* means any by-product of coal mining or coal cleaning operations with an ash content greater than 50 percent (by weight) and a heating value less than 13,900 kilojoules per kilogram (kJ/kg) (6,000 Btu per pound (Btu/lb) on a dry basis.

*Cogeneration steam generating unit* means a steam generating unit that simultaneously produces both electrical (or mechanical) and thermal energy from the same primary energy source.

*Combined cycle system* means a system in which a separate source (such as a stationary gas turbine, internal combustion engine, or kiln) provides exhaust gas to a steam generating unit.

(iii) The sulfur content of the oil from which the shipment came (or of the shipment itself); and

(iv) The method used to determine the sulfur content of the oil.

(3) For coal:

(i) The name of the coal supplier;

(ii) The location of the coal when the sample was collected for analysis to determine the properties of the coal, specifically including whether the coal was sampled as delivered to the affected facility or whether the sample was collected from coal in storage at the mine, at a coal preparation plant, at a coal supplier's facility, or at another location. The certification shall include the name of the coal mine (and coal seam), coal storage facility, or coal preparation plant (where the sample was collected);

(iii) The results of the analysis of the coal from which the shipment came (or of the shipment itself) including the sulfur content, moisture content, ash content, and heat content; and

(iv) The methods used to determine the properties of the coal.

(g) The owner or operator of each affected facility shall record and maintain records of the amounts of each fuel combusted during each day.

(h) The owner or operator of each affected facility subject to a Federally enforceable requirement limiting the annual capacity factor for any fuel or mixture of fuels under § 60.42c or § 60.43c shall calculate the annual capacity factor individually for each fuel combusted. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of the calendar month.

(i) All records required under this section shall be maintained by the owner or operator of the affected facility for a period of two years following the date of such record.

(j) The reporting period for the reports required under this subpart is each six-month period. All reports shall be submitted to the Administrator and shall be postmarked by the 30th day following the end of the reporting period.

[55 FR 37683, Sept. 12, 1990, as amended at 64 FR 7465, Feb. 12, 1999]

## Subpart E—Standards of Performance for Incinerators

### § 60.50 Applicability and designation of affected facility.

(a) The provisions of this subpart are applicable to each incinerator of more than 45 metric tons per day charging rate (50 tons/day), which is the affected facility.

(b) Any facility under paragraph (a) of this section that commences construction or modification after August 17, 1971, is subject to the requirements of this subpart.

[42 FR 37936, July 25, 1977]

### § 60.51 Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Act and in subpart A of this part.

(a) *Incinerator* means any furnace used in the process of burning solid waste for the purpose of reducing the volume of the waste by removing combustible matter.

(b) *Solid waste* means refuse, more than 50 percent of which is municipal type waste consisting of a mixture of paper, wood, yard wastes, food wastes, plastics, leather, rubber, and other combustibles, and noncombustible materials such as glass and rock.

(c) *Day* means 24 hours.

[36 FR 24877, Dec. 23, 1971, as amended at 39 FR 20792, June 14, 1974]

### § 60.52 Standard for particulate matter.

(a) On and after the date on which the performance test required to be conducted by § 60.8 is completed, no owner or operator subject to the provisions of this part shall cause to be discharged into the atmosphere from any affected facility any gases which contain particulate matter in excess of 0.18 g/dscm (0.08 gr/dscf) corrected to 12 percent CO<sub>2</sub>.

[39 FR 20792, June 14, 1974]

### § 60.53 Monitoring of operations.

(a) The owner or operator of any incinerator subject to the provisions of this part shall record the daily charging rates and hours of operation.

**§ 60.54 Test methods and procedures.**

(a) In conducting the performance tests required in § 60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in § 60.8(b).

(b) The owner or operator shall determine compliance with the particulate matter standard in § 60.52 as follows:

(1) The emission rate ( $c_{12}$ ) of particulate matter, corrected to 12 percent  $\text{CO}_2$ , shall be computed for each run using the following equation:

$$c_{12} = c_s (12/\% \text{CO}_2)$$

where:

$c_{12}$ =concentration of particulate matter, corrected to 12 percent  $\text{CO}_2$ , g/dscm (gr/dscf).

$c_s$ =concentration of particulate matter, g/dscm (gr/dscf).

$\% \text{CO}_2$ = $\text{CO}_2$  concentration, percent dry basis.

(2) Method 5 shall be used to determine the particulate matter concentration ( $c_s$ ). The sampling time and sample volume for each run shall be at least 60 minutes and 0.85 dscm (30 dscf).

(3) The emission rate correction factor, integrated or grab sampling and analysis procedure of Method 3B shall be used to determine  $\text{CO}_2$  concentration ( $\% \text{CO}_2$ ).

(i) The  $\text{CO}_2$  sample shall be obtained simultaneously with, and at the same traverse points as, the particulate run. If the particulate run has more than 12 traverse points, the  $\text{CO}_2$  traverse points may be reduced to 12 if Method 1 is used to locate the 12  $\text{CO}_2$  traverse points. If individual  $\text{CO}_2$  samples are taken at each traverse point, the  $\text{CO}_2$  concentration ( $\% \text{CO}_2$ ) used in the correction equation shall be the arithmetic mean of all the individual  $\text{CO}_2$  sample concentrations at each traverse point.

(ii) If sampling is conducted after a wet scrubber, an "adjusted"  $\text{CO}_2$  concentration  $[(\% \text{CO}_2)_{\text{adj}}]$ , which accounts for the effects of  $\text{CO}_2$  absorption and dilution air, may be used instead of the  $\text{CO}_2$  concentration determined in this paragraph. The adjusted  $\text{CO}_2$  concentration shall be determined by either of the procedures in paragraph (c) of this section.

(c) The owner or operator may use either of the following procedures to de-

termine the adjusted  $\text{CO}_2$  concentration.

(1) The volumetric flow rates at the inlet and outlet of the wet scrubber and the inlet  $\text{CO}_2$  concentration may be used to determine the adjusted  $\text{CO}_2$  concentration  $[(\% \text{CO}_2)_{\text{adj}}]$  using the following equation:

$$(\% \text{CO}_2)_{\text{adj}} = (\% \text{CO}_2)_{\text{di}} (Q_{\text{di}}/Q_{\text{do}})$$

where:

$(\% \text{CO}_2)_{\text{adj}}$ =adjusted outlet  $\text{CO}_2$  concentration, percent dry basis.

$(\% \text{CO}_2)_{\text{di}}$ = $\text{CO}_2$  concentration measured before the scrubber, percent dry basis.

$Q_{\text{di}}$ =volumetric flow rate of effluent gas before the wet scrubber, dscm/min (dscf/min).

$Q_{\text{do}}$ =volumetric flow rate of effluent gas after the wet scrubber, dscm/min (dscf/min).

(i) At the outlet, Method 5 is used to determine the volumetric flow rate ( $Q_{\text{do}}$ ) of the effluent gas.

(ii) At the inlet, Method 2 is used to determine the volumetric flow rate ( $Q_{\text{di}}$ ) of the effluent gas as follows: Two full velocity traverses are conducted, one immediately before and one immediately after each particulate run conducted at the outlet, and the results are averaged.

(iii) At the inlet, the emission rate correction factor, integrated sampling and analysis procedure of Method 3B is used to determine the  $\text{CO}_2$  concentration  $[(\% \text{CO}_2)_{\text{di}}]$  as follows: At least nine sampling points are selected randomly from the velocity traverse points and are divided randomly into three sets, equal in number of points; the first set of three or more points is used for the first run, the second set for the second run, and the third set for the third run. The  $\text{CO}_2$  sample is taken simultaneously with each particulate run being conducted at the outlet, by traversing the three sampling points (or more) and sampling at each point for equal increments of time.

(2) Excess air measurements may be used to determine the adjusted  $\text{CO}_2$  concentration  $[(\% \text{CO}_2)_{\text{adj}}]$  using the following equation:

$$(\% \text{CO}_2)_{\text{adj}} = (\% \text{CO}_2)_{\text{di}} [(100 + \% \text{EA}_i)/(100 + \% \text{EA}_o)]$$

where:

$(\% \text{CO}_2)_{\text{adj}}$ =adjusted outlet  $\text{CO}_2$  concentration, percent dry basis.

$(\% \text{CO}_2)_{\text{di}}$ = $\text{CO}_2$  concentration at the inlet of the wet scrubber, percent dry basis.

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%EA<sub>i</sub>=excess air at the inlet of the scrubber, percent.

%EA<sub>o</sub>=excess air at the outlet of the scrubber, percent.

(i) A gas sample is collected as in paragraph (c)(1)(iii) of this section and the gas samples at both the inlet and outlet locations are analyzed for CO<sub>2</sub>, O<sub>2</sub>, and N<sub>2</sub>.

(ii) Equation 3B-3 of Method 3B is used to compute the percentages of excess air at the inlet and outlet of the wet scrubber.

[54 FR 6665, Feb. 14, 1989, as amended at 55 FR 5212, Feb. 14, 1990]

### **Subpart Ea—Standards of Performance for Municipal Waste Combustors for Which Construction is Commenced After December 20, 1989 and on or Before September 20, 1994**

SOURCE: 56 FR 5507, Feb. 11, 1991, unless otherwise noted.

#### **§ 60.50a Applicability and delegation of authority.**

(a) The affected facility to which this subpart applies is each municipal waste combustor unit with a municipal waste combustor unit capacity greater than 225 megagrams per day (250 tons per day) of municipal solid waste for which construction, modification, or reconstruction is commenced as specified in paragraphs (a)(1) and (a)(2) of this section.

(1) Construction is commenced after December 20, 1989 and on or before September 20, 1994.

(2) Modification or reconstruction is commenced after December 20, 1989 and on or before June 19, 1996.

(b) [Reserved]

(c) Any unit combusting a single-item waste stream of tires is not subject to this subpart if the owner or operator of the unit:

(1) Notifies the Administrator of an exemption claim; and

(2) Provides data documenting that the unit qualifies for this exemption.

(d) Any cofired combustor, as defined under § 60.51a, located at a plant that meets the capacity specifications in paragraph (a) of this section is not sub-

ject to this subpart if the owner or operator of the cofired combustor:

(1) Notifies the Administrator of an exemption claim;

(2) Provides a copy of the federally enforceable permit (specified in the definition of cofired combustor in this section); and

(3) Keeps a record on a calendar quarter basis of the weight of municipal solid waste combusted at the cofired combustor and the weight of all other fuels combusted at the cofired combustor.

(e) Any cofired combustor that is subject to a federally enforceable permit limiting the operation of the combustor to no more than 225 megagrams per day (250 tons per day) of municipal solid waste is not subject to this subpart.

(f) Physical or operational changes made to an existing municipal waste combustor unit primarily for the purpose of complying with emission guidelines under subpart Cb are not considered a modification or reconstruction and do not result in an existing municipal waste combustor unit becoming subject to this subpart.

(g) A qualifying small power production facility, as defined in section 3(17)(C) of the Federal Power Act (16 U.S.C. 796(17)(C)), that burns homogeneous waste (such as automotive tires or used oil, but not including refuse-derived fuel) for the production of electric energy is not subject to this subpart if the owner or operator of the facility notifies the Administrator of an exemption claim and provides data documenting that the facility qualifies for this exemption.

(h) A qualifying cogeneration facility, as defined in section 3(18)(B) of the Federal Power Act (16 U.S.C. 796(18)(B)), that burns homogeneous waste (such as automotive tires or used oil, but not including refuse-derived fuel) for the production of electric energy and steam or forms of useful energy (such as heat) that are used for industrial, commercial, heating, or cooling purposes, is not subject to this subpart if the owner or operator of the facility notifies the Administrator of an exemption claim and provides data documenting that the facility qualifies for this exemption.